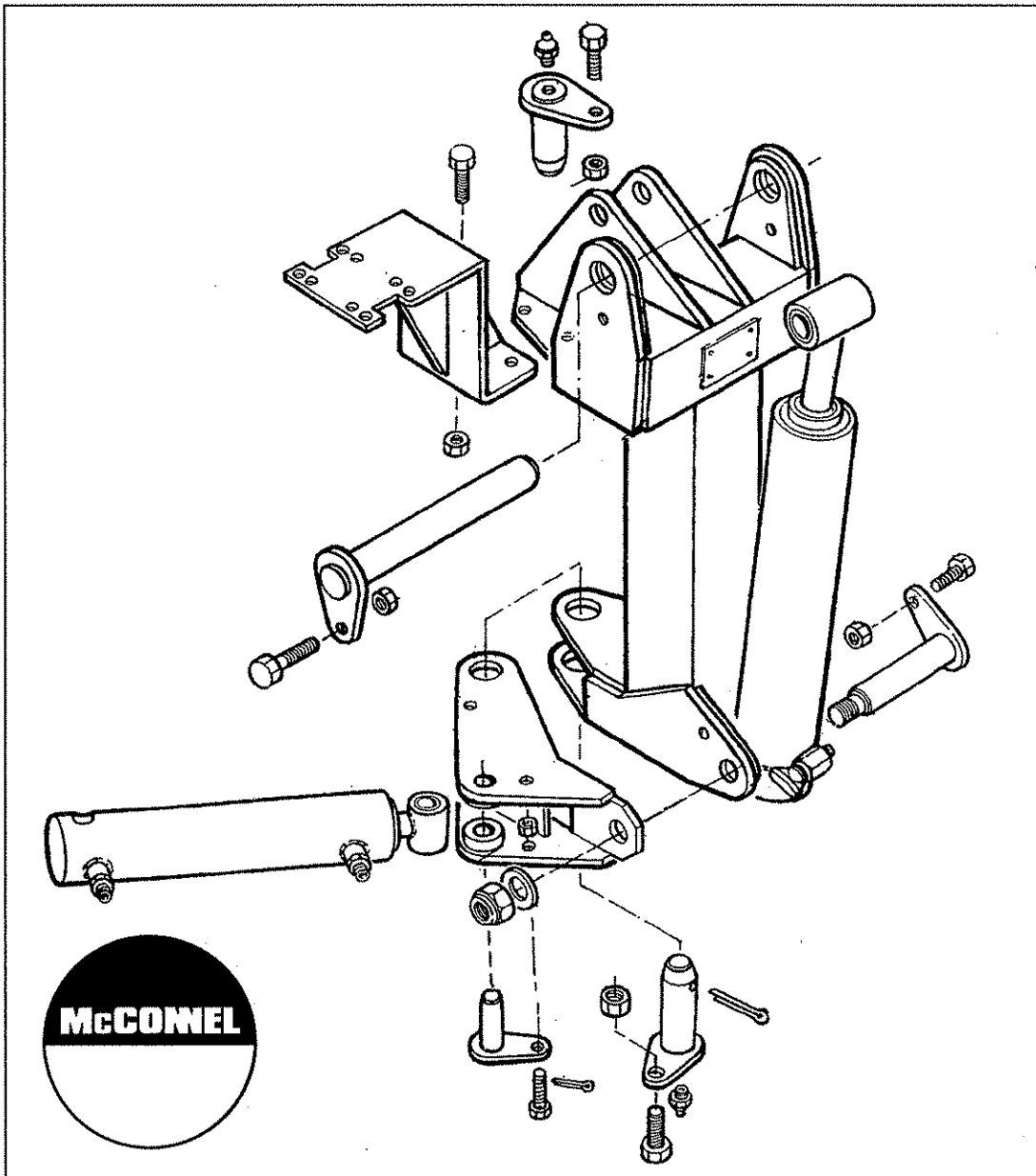


PA 500 E

PA 590 E

Parts Manual



McCOMEL



For best performance ...

USE ONLY GENUINE McCONEL SERVICE PARTS

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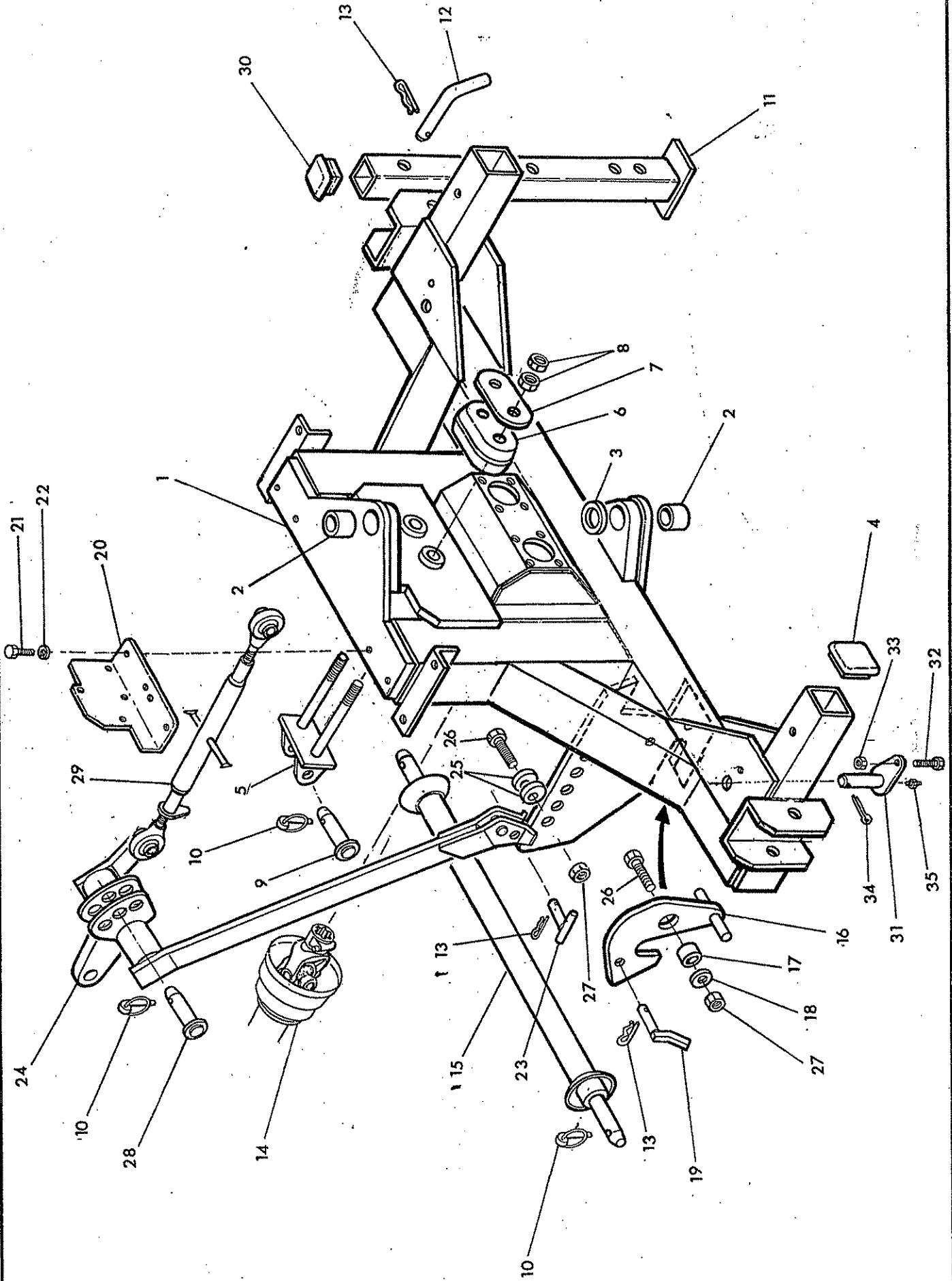
- ***Machine Type***
- ***Serial Number***
- ***Part Number***

*Design improvements may alter some of the parts listed in this manual –
the latest part will always be supplied when it is interchangeable with an earlier one.*

MAIN FRAME

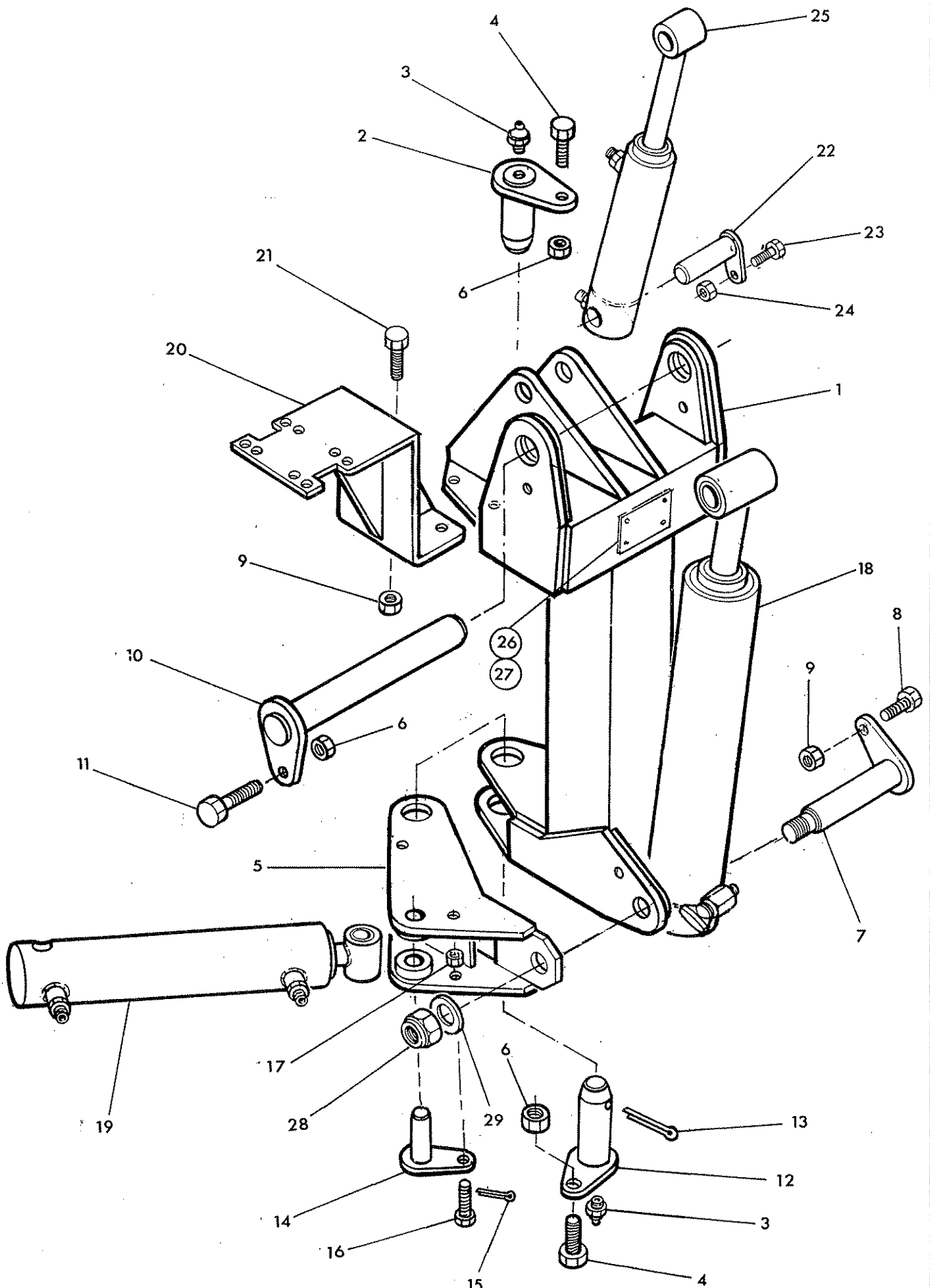


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Ref	Part No	Qty	Description
MAIN FRAME AND FITTINGS			
1	41522.02	1	Main frame
2	70 16 010	2	Bush
3	60 01 136	1	Thrust washer
4	41580.01	2	Plastic plug
5	75 60 398	1	Top hitch bracket
6	75 60 141	1	Rubber damper
7	75 60 130	1	Reaction plate
8	91 13 009	4	Plain nut
9	75 60 144	1	Top link pin
10	04 31 217	4	Linch pin
11	41773.01	1	Stand leg
12	71 92 023	1	Leg pin
13	04 31 105	5	Spring cotter
14	71 36 330	1	P.T.O. shaft
15	42333.02	1	Hitch bar
16	42591.02	1	Catch hook
17	42801.01	2	Spacer sleeve
18	91 00 108	2	Plain washer
19	43011.01	2	Lock pin
20	74 50 258	1	Mounting bracket - rotor valve
21	93 13 055	2	Setscrew
22	91 00 205	2	Spring washer
23	71 92 027	2	Stabiliser pin
24	41915.01	1	Stabiliser
25	71 92 080	4	Eccentric collar
26	92 13 148	4	Bolt
27	91 43 008	4	Self locking nut
28	71 18 112	1	Top link pin
29	07.584.01	1	Top link
30	71 91 108	1	Plastic bung
31	42911.01	1	Pin - slew base
32	42269.01	1	Bolt
33	91 43 005	1	Self locking nut
34	95 01 255	1	Split pin
35	09 01 121	1	Greaser



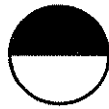


Ref	Part No	Qty	Description
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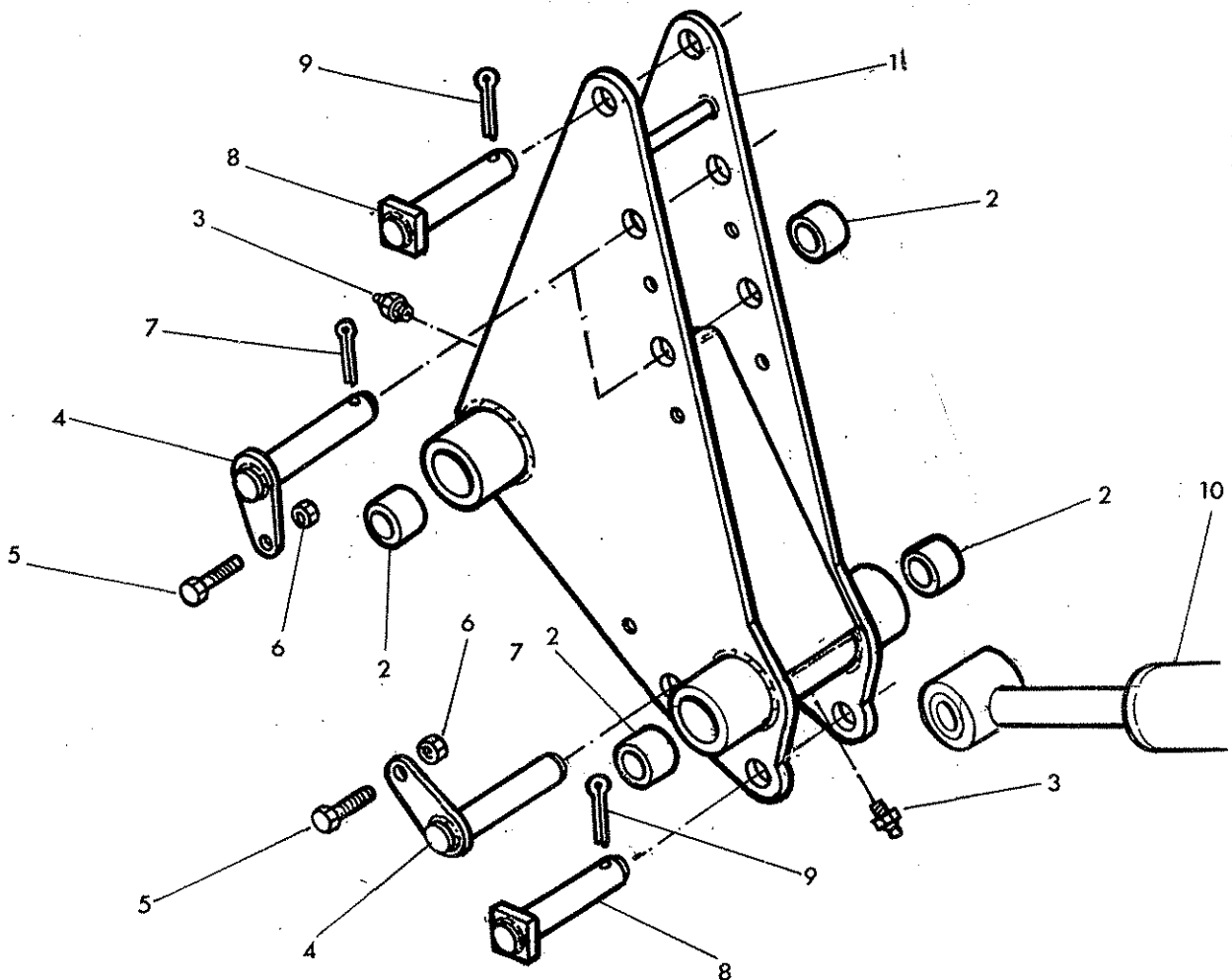
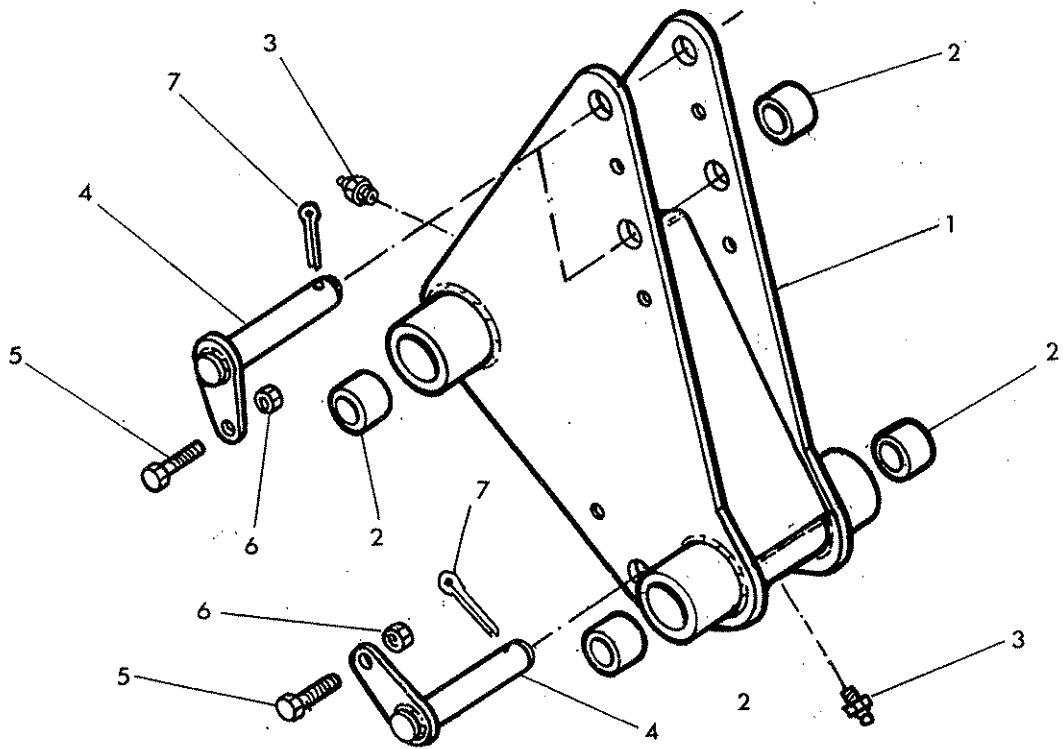
PILLAR AND FITTINGS

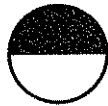
1	41525.02	1	Pillar	
2	41555.01	1	Pivot pin - pillar top	
3	09 01 121	2	Greaser	
4	93 13 087	2	Bolt	
5	42023.03	1	Slew bracket	
6	91 43 007	3	Self locking nut	
7	42805.01	1	Pivot pin - lift ram base	
8	92 13 096	1	Bolt	
9	91 43 006	3	Self locking nut	
10	41556.01	1	Pivot pin - rocker	
11	92 13 117	1	Bolt	
12	41555.02	1	Pivot pin - pillar bottom	
13	95 01 507	1	Split pin	
14	42911.02	1	Pivot pin - slew rod	
15	95 01 255	1	Split pin	
16	42269.01	1	Setscrew	
17	91 43 005	1	Self locking nut	
18	42095.02	1	Lift ram assembly	
19	41565.03	1	Slew ram assembly	
20	41508.02	1	Valve mounting bracket	} E models only
21	92 13 086	2	Bolt	
22	75 60 064	1	Pin compensator ram base	} AHC only
23	92 13 065	1	Bolt	
24	91 43 005	1	Self locking nut	
25	76 50 260	1	Compensator ram	
26	13 35 246	1	Serial number plate	
27	71 03 230	4	Pop rivet	
28	91 43 009	1	Self locking nut	
29	91 00 109	1	Plain washer	

ROCKERS



McCORMEL





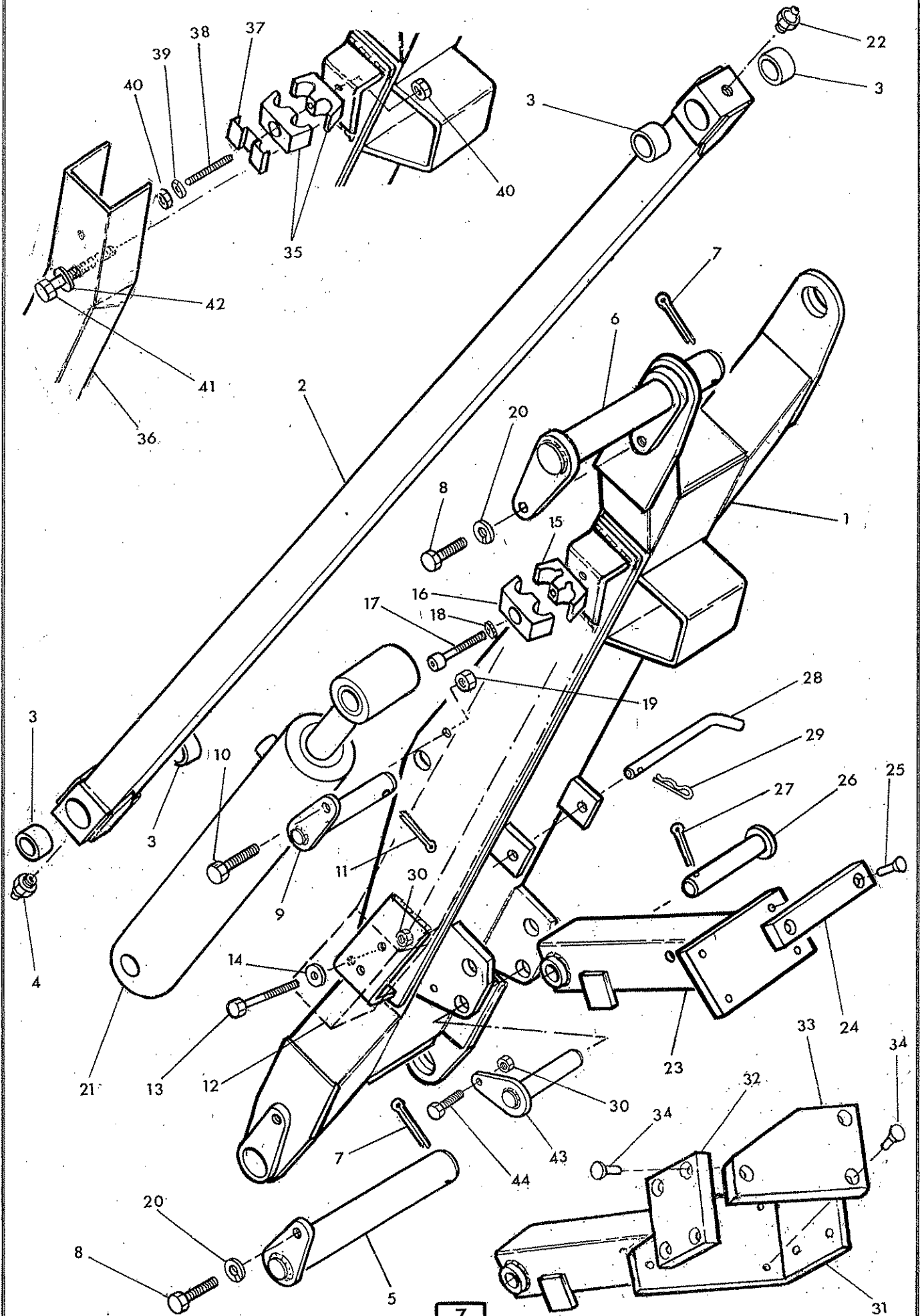
Ref	Part No	Qty	Description
			ROCKER - NON AHC
1	71 93 330	1	Rocker
2	72 13 023	4	Bush
3	09 01 121	2	Greaser
4	41694.01	3	Pin
5	93 13 065	3	Setscrew
6	91 43 006	3	Self locking nut
7	05 03 166	3	Split pin

Ref	Part No	Qty	Description
			ROCKER - AHC
1	71 95 300	1	Rocker
2	72 13 023	4	Bush
3	09 01 121	2	Greaser
4	41694.01	3	Pin
5	93 13 065	3	Setscrew
6	91 43 006	3	Self locking nut
7	05 03 166	3	Split pin
8	71 95 003	2	Pin compensator ram rod
9	95 01 406	2	Split pin
10	76 50 260	1	Compensator ram

MAIN ARM

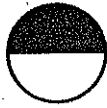


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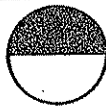
Ref	Part No	Qty	Description	
MAIN ARM				
1	41597.05	1	Main arm - PA500	
	41597.06	1	Main arm - PA590	
2	41662.01	1	Tension link - PA500	
	41662.02	1	Tension link - PA590	
3	60 12 032	4	Bush	
4	09 01 121	1	Greaser - straight	
5	41686.01	1	Pivot pin - main arm	
6	41687.01	1	Pivot pin - dipper arm	
7	95 01 509	2	Split pin	
8	93 13 087	2	Setscrew	
9	41688.01	1	Pivot pin - reach ram rod	
10	93 13 076	1	Setscrew	
11	05 03 166	1	Split pin	
12	41665.01	1	Hose guard - PA500] Std
	41665.02	1	Hose guard - PA590	
13	92 13 185	2	Bolt] Arm
14	91 00 105	2	Plain washer	
15	06.430.19	2	Hose clamp lower	
16	42024.06	1	Hose clamp upper - 1 pair	
17	92 43 154	2	Capscrew	
18	91 00 404	2	Shakeproof washer	
19	91 43 006	1	Self locking nut	
20	91 00 207	2	Spring washer	
21	71 93 334	1	Reach ram	
22	09 01 124	1	Greaser	
23	43021.01	1	Transport prop] Std
24	10 75 041	2	Pad] Arm
25	10 75 047	4	Countersunk rivet	
26	43023.01	1	Pin - prop pivot	
27	95 01 406	1	Split pin	
28	43020.01	1	Pin - prop - stowage	
29	04 31 105	1	Spring cotter	
30	91 43 005	3	Self locking nut	
31	43021.04	1	Transport prop] Midcut
32	43091.02	1	Pad	
33	43091.01	1	Pad	
34	10 75 047	7	Countersunk rivet	
35	42024.06	2	Hose clamp	
36	41665.14	1	Hose guard	
37	43095.01	2	Hose clip	
38	42198.04	2	Stud	
39	91 00 104	2	Spring washer	
40	91 13 004	4	Plain nut	
41	92 13 205	2	Bolt	
42	91 00 105	2	Plain washer	
43	75 60 064	1	Pin - comp. ram base] AHC
44	92 13 065	1	Bolt] only



Ref	Part No	Qty	Description
DIPPER ARM AND FITTINGS			
1	41649.03	1	Dipper arm - PA500 - as illus
	41649.04	1	Dipper arm - PA590
2	72 13 023	2	Bush - dipper pivot
3	71 36 035	2	Nylon head bush
4	41690.01	6	Bush
5	09 01 121	5	Greaser
6	41692.01	1	Pin - tension link
7	93 13 075	3	Setscrew
8	41665.03	1	Hose guard - PA500
	41665.04	1	Hose guard - PA590
9	06.430.19	1	Hose clamp lower
10	92 43 154	2	Capscrew
11	91 00 404	2	Shakeproof washer
12	41691.02	1	Pin - angle ram base
13	74 50 251	1	Radius arm front
14	74 50 250	1	Radius arm rear
15	74 50 252	1	Slave link
16	41693.01	1	Pin - angle ram rod
17	71 92 009	1	Pin - slave link
18	95 01 406	4	Split pin
19	71 92 308	1	Head pivot tube
20	71 92 316	1	Jaw plate
21	04 23 548	1	Spring dowel
22	92 13 185	3	Bolt
23	71 95 303	1	Hose junction bracket
24	02 11 146	1	Bolt
25	02 11 126	1	Bolt
26	01 41 006	2	Self locking nut
27	91 43 005	4	Self locking nut
28	91 00 105	2	Plain washer
29	76 50 255	1	Angling ram
30	42024.06	2	Hose clamp upper - 1 pair
31	41741.01	1	Rubber edge strip
32	05 03 166	1	Split pin

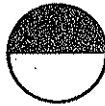


Ref	Part No.	Qty	Description
			MIDCUT FORWARD EXTENSION
1	42644.04	1	Forward extension R hand
	42644.03	1	Forward extension L hand
2	72 13 023	4	Bush
3	09 01 121	2	Greaser
4	41692.01	1	Pin - tension link
5	42684.02	1	Pin - fold ram base
6	93 13 065	2	Setscrew
7	91 43 005	2	Self locking nut
8	42664.05	1	Fold ram

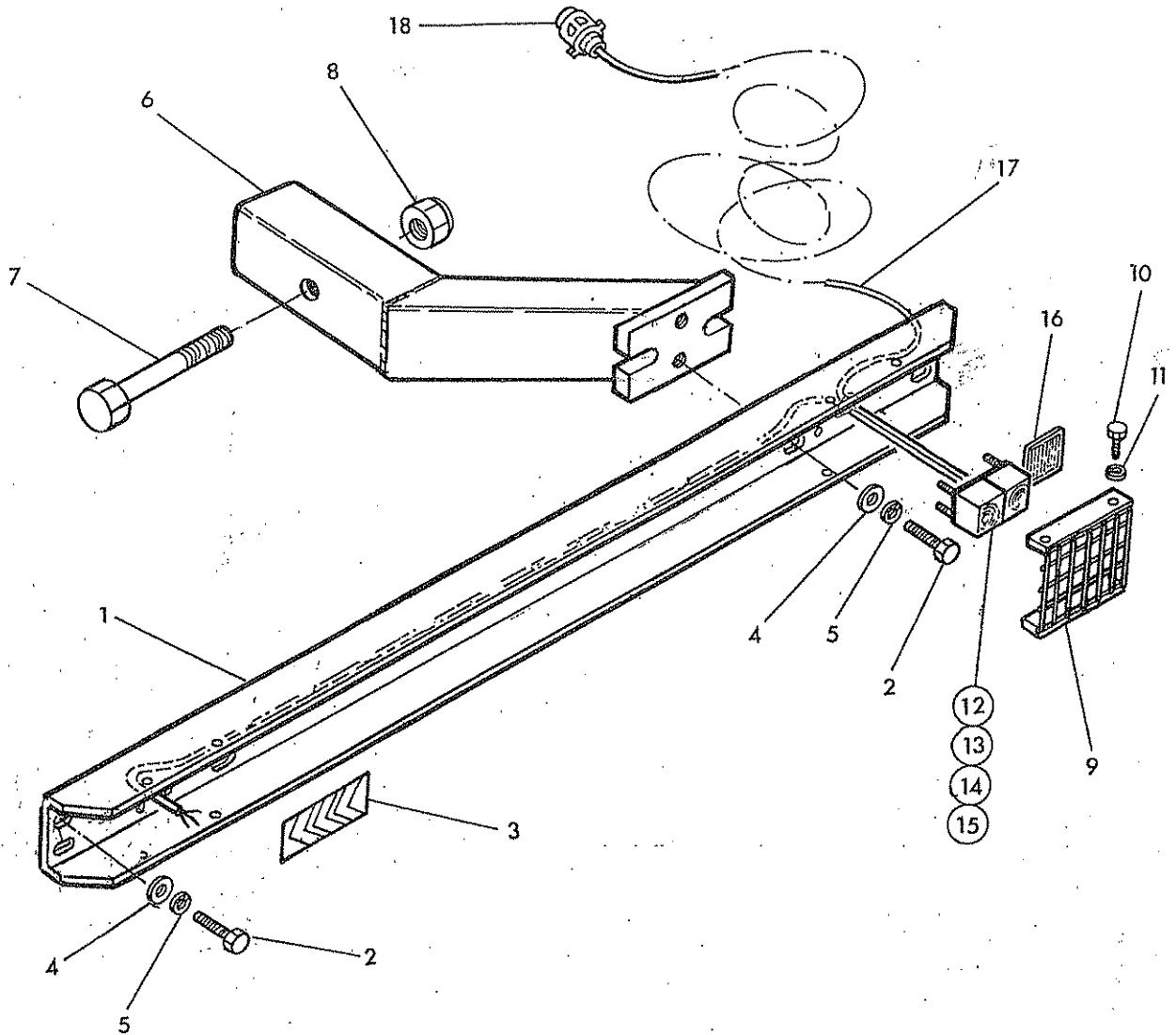


Ref	Part No.	Qty	Description
MIDCUT DIPPER ARM AND FITTINGS			
1	42643.03	1	Dipper arm L hand
	42643.04	1	Dipper arm R hand
2	71 36 035	2	Nylon head bush
3	41690.01	6	Bush
4	09 01 121	4	Greaser
5	41687.03	1	Pin - dipper pivot
6	93 13 087	1	Setscrew
7	93 13 075	2	Setscrew
8	41665.12	1	Hose guard
9	42684.03	1	Pin - fold ram rod
10	92 43 124	2	Capscrew
11	91 00 404	2	Shakeproof washer
12	41691.01	1	Pin - angle ram base
13	74 50 251	1	Radius arm front
14	74 50 250	1	Radius arm rear
15	74 50 252	1	Slave link
16	41693.01	1	Pin - angle ram rod
17	71 92 009	1	Pin - slave link
18	95 01 406	2	Split pin
19	71 92 308	1	Head pivot tube
20	71 92 316	1	Jaw plate
21	04 23 548	1	Spring dowel
22	92 13 155	2	Bolt
23	71 95 303	1	Hose junction bracket
24	02 11 146	1	Bolt
25	02 11 126	1	Bolt
26	01 41 006	2	Self locking nut
27	91 43 005	6	Self locking nut
28	91 00 105	2	Plain washer
29	75 60 344	1	Angling ram
30	93 13 065	2	Setscrew
31	95 01 509	1	Split pin
32	91 43 007	1	Self locking nut
33	92 13 185	3	Bolt
34	42024.06	2	Hose clamp - 1 pair

LIGHT BAR



WAGNER

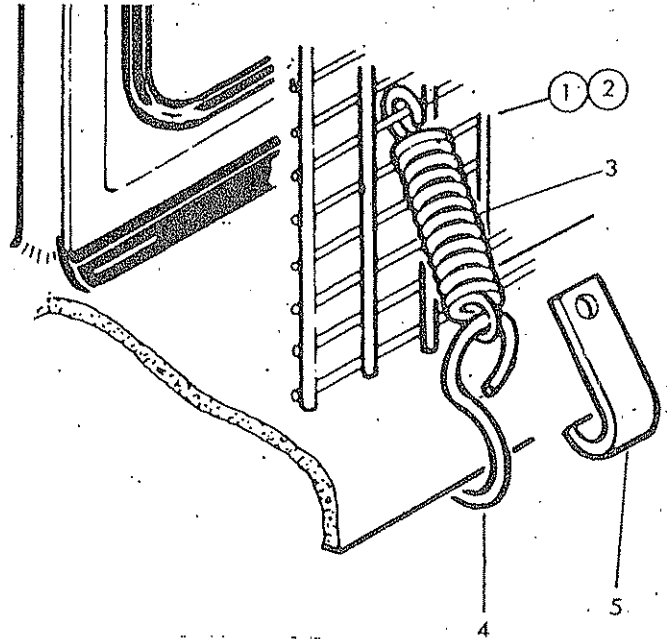
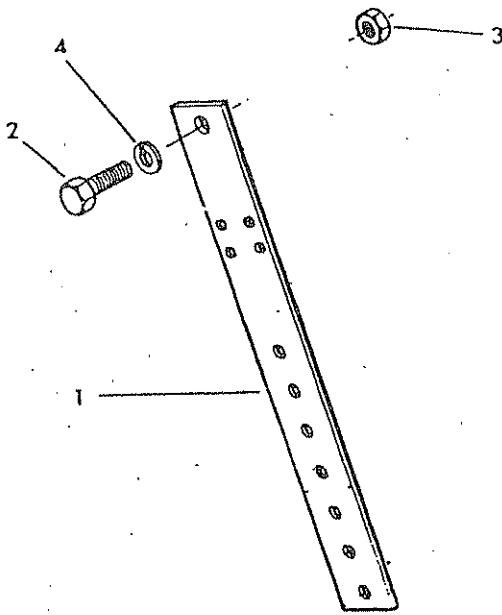


Ref	Part No	Qty	Description
	74 50 729		LIGHT BAR KIT
1	41549.01	1	Light bar
2	93 13 065	4	Setscrew
3	12 90 347	2	Sticker - chevron
4	91 00 105	4	Plain washer
5	91 00 205	4	Spring washer
6	41527.02	1	Light bar mount
7	05.292.23	1	Bolt
8	91 43 006	1	Self locking nut
9	75 60 353	2	Light guard
10	93 13 023	8	Setscrew
11	91 00 203	8	Spring washer
12	75 60 086	2	Light incl:
13	75 60 087	2	Stop/tail bulb 12v
14	75 60 088	2	Flasher bulb 12v
15	93 00 142	8	Self tap screw
16	75 60 093	2	Reflector - self adhesive
17	75 60 090	1	Cable
18	75 60 089	1	Plug - 7 pin

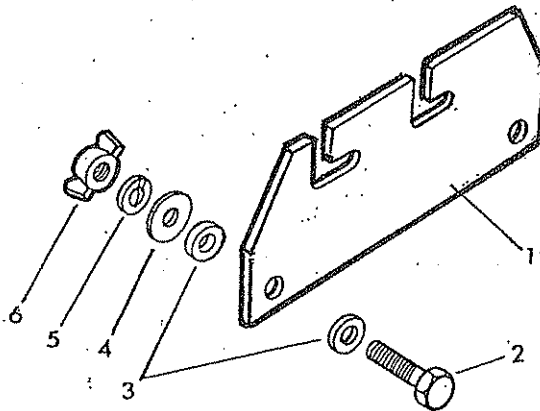
**CAB GUARD
CONTROL MOUNTING**



WILCOX

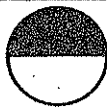


Ref. Part No.	Qty.	Description
73 13 324		CAB GUARD KIT
1 73 13 049	1	Guard panel - large
2 73 13 050	1	Guard panel - small
3 60 01 064	12	Spring
4 60 01 065	6	Hook
5 73 13 051	6	Hook
71 09 319		CONTROL MOUNTING ASSEMBLY
1 71 09 146	1	Pillar
2 93 11 086	1	Setscrew
3 01 11 006	1	Nut
4 01 00 206	1	Spring washer

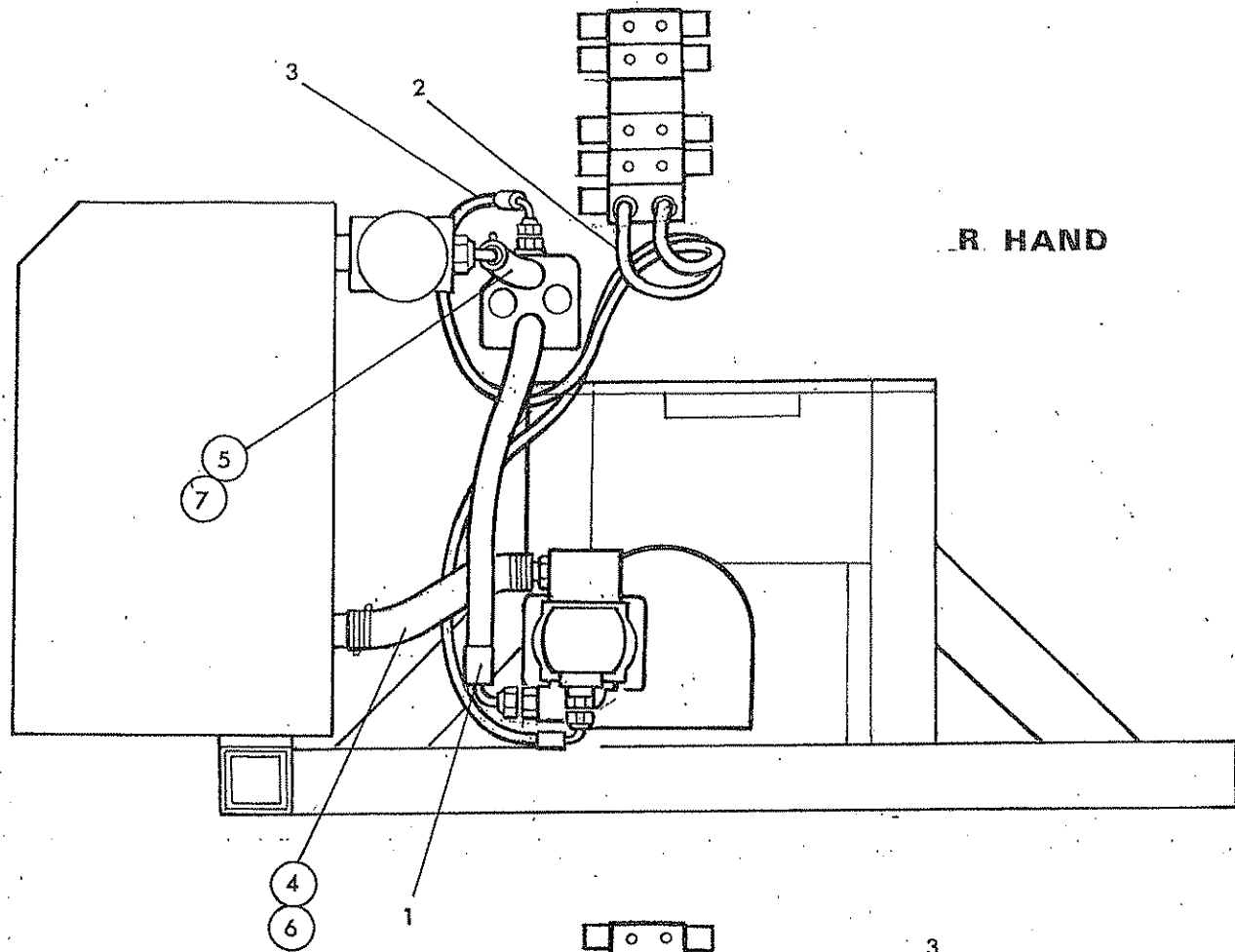


Ref. Part No	Qty	Description
		CONTROL UNIT MOUNTING ASSY
1 03.583.01	1	Bracket
2 93 13 094	2	Setscrew
3 03.152.01	4	Rubber washer
4 91 00 104	2	Plain washer
5 91 00 204	2	Spring washer
6 91 93 004	2	Wingnut

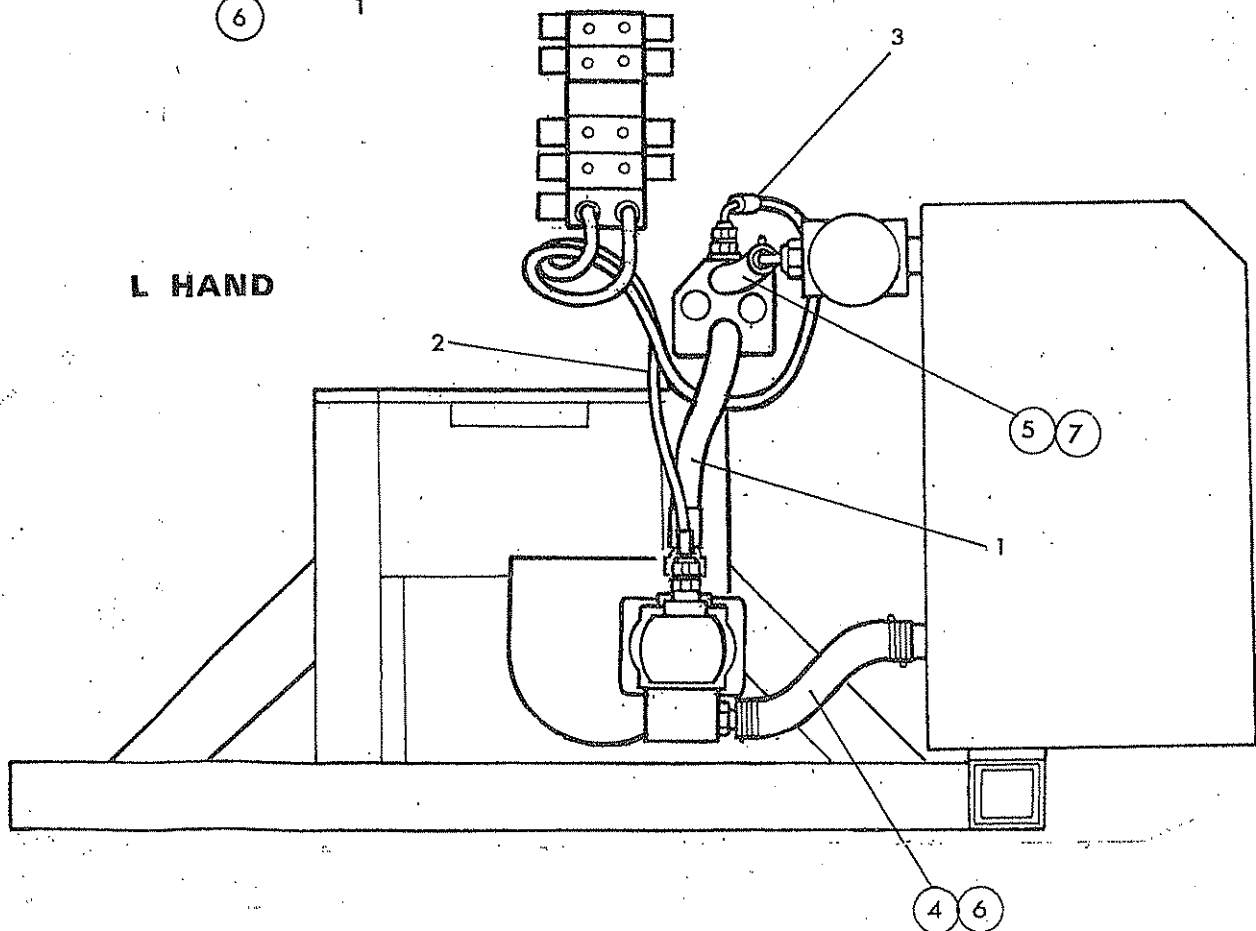
**HOSE INSTALLATION -
primary circuit**



WAGNER



R. HAND



L. HAND

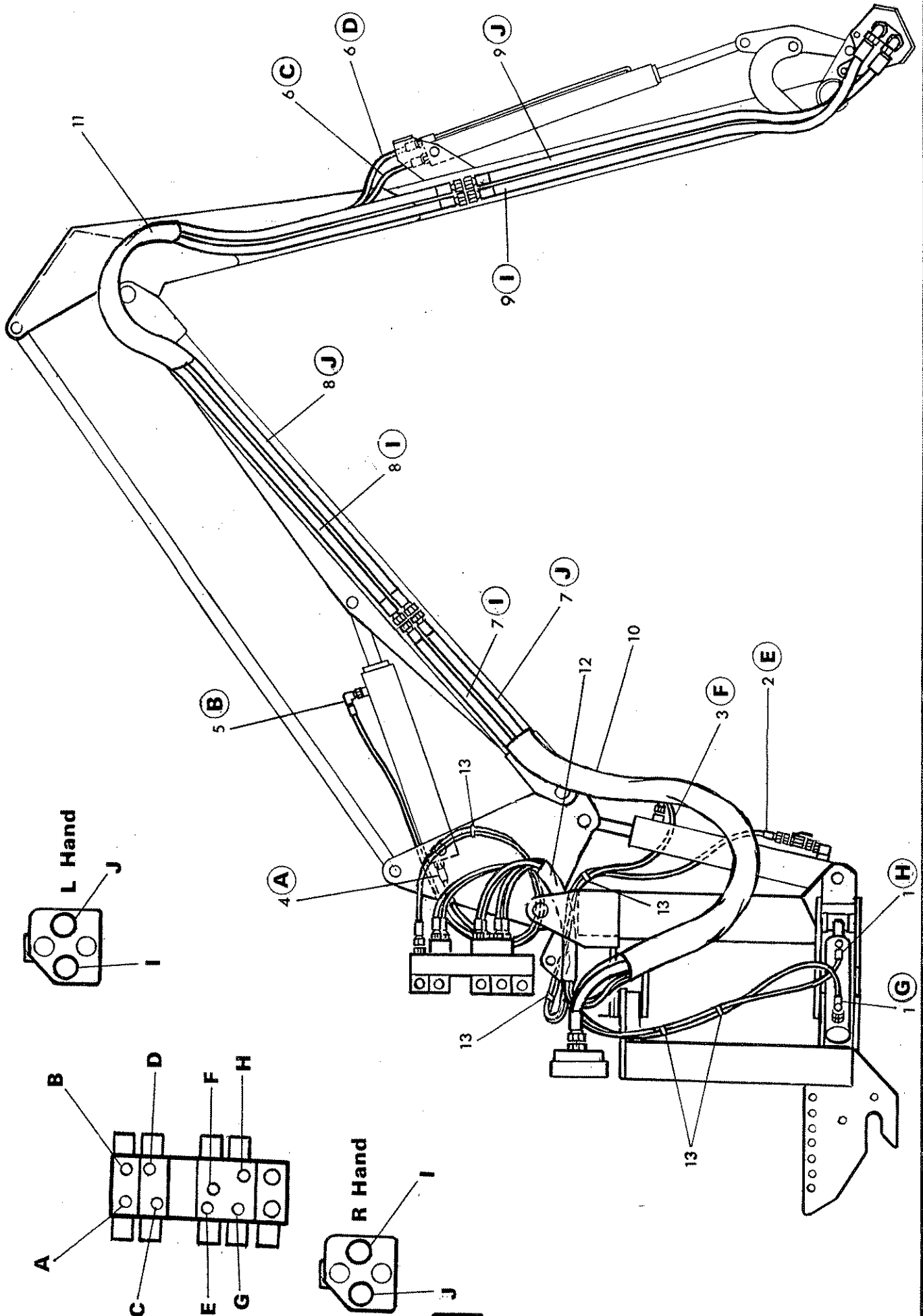


Ref	Part No	Qty	Description
			PRIMARY CIRCUIT T I
			Main control valve Rotor control valve Pump and gearbox Hydraulic reservoir
1	85 01 169	1	Hose 1 BSPx29" long. Pump - R.C. valve R hand
	10.011.11	1	Hose 1 BSPx550mm long. Pump-R.C. valve L hand
2	10.006.27	1	Hose 1/2" BSPx1700mm long. Pump - main valve R hand
	10.005.24	1	Hose 1/2" BSPx1400mm long. Pump - main valve L hand
3	10.006.26	1	Hose 1/2" BSPx1600mm long. Main valve - R.C. valve
4	85 01 252	1	Hose 1 1/2" bore x 14" long - suction
5	85 00 800	1	Hose 1" bore x 275" long - R.C. valve - Tank
6	09 04 107	4	Hose clip - 1 1/2" bore
7	09 04 106	4	Hose clip 1" bore

HOSE INSTALLATION -
service circuit



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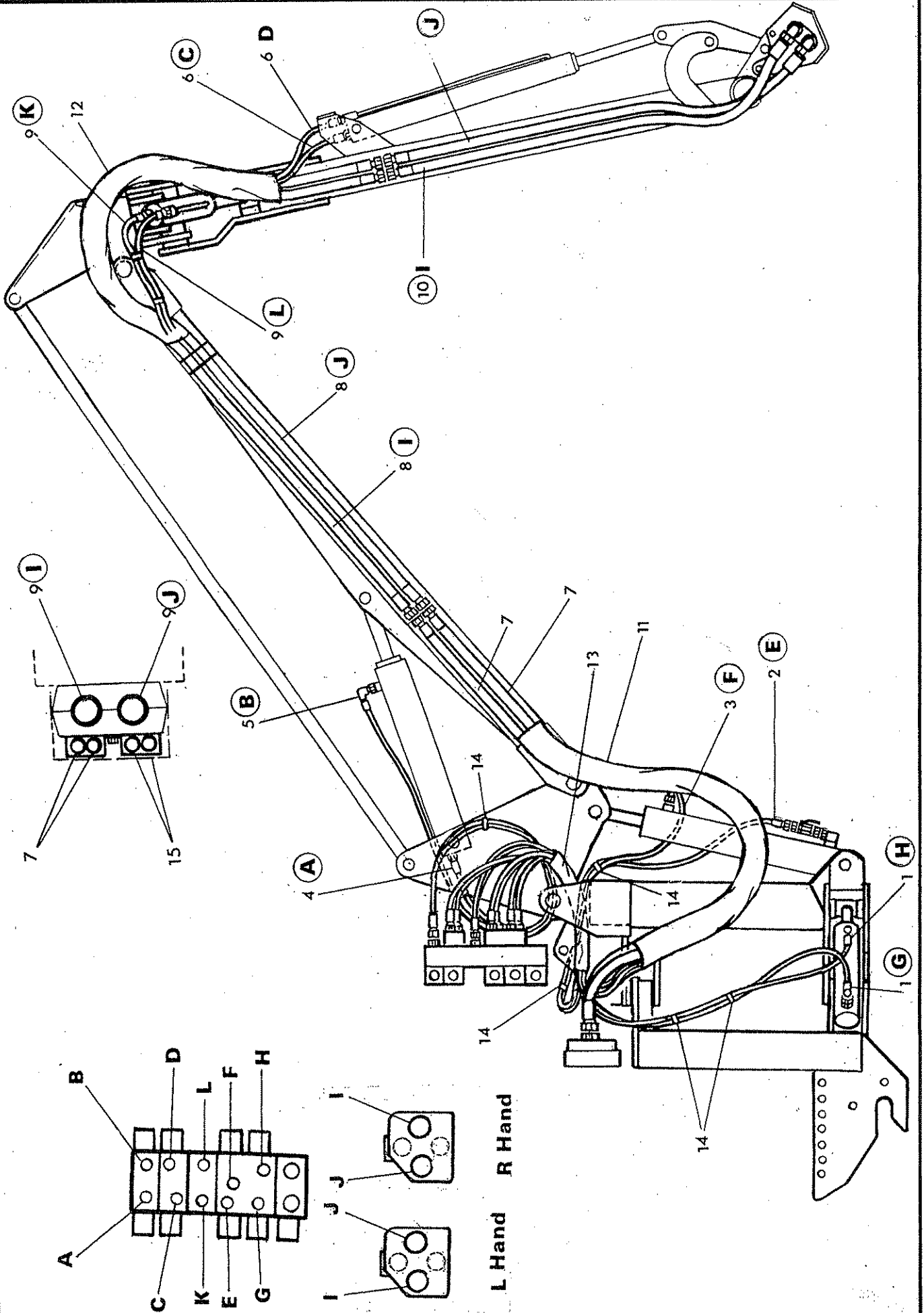


Ref	Part No	Qty	Description
HOSE INSTALLATIONS SERVICE CIRCUITS			
1	10.002.27	2	Hose 1/4 BSP x 1700mm long - slew
2	10.001.30	1	Hose 1/4 BSP x 2000mm long - lift base
3	10.002.27	1	Hose 1/4 BSP x 1700mm long - lift gland
4	10.001.20	1	Hose 1/4 BSP x 1000mm long - reach base
5	10.002.25	1	Hose 1/4 BSP x 1500mm long - reach gland
6	10.001.63	2	Hose 1/4 BSP x 5300mm long - angle PA500
	10.001.70	2	Hose 1/4 BSP X 6000mm long - angle PA590
7	10.011.30	2	Hose 1" BSP x 2000mm long - R.C.valve - main arm junction
8	85 69 028	2	Hose 1" BSP x 2030mm long - dipper pivot PA500
	85 69 038	2	Hose 1" BSP x 2700mm long - dipper pivot PA590
9	85 01 098	2	Hose 1" BSP x 1220mm long - dipper junction - flail head
10	75 50 026	1	Hose sleeve 66" long
11	75 50 063	2	Hose sleeve 30" long
12	42374.13	1	Hose sleeve 650mm long
13	71 35 084	7	Hose tie

HOSE INSTALLATION - MIDCUT
service circuit

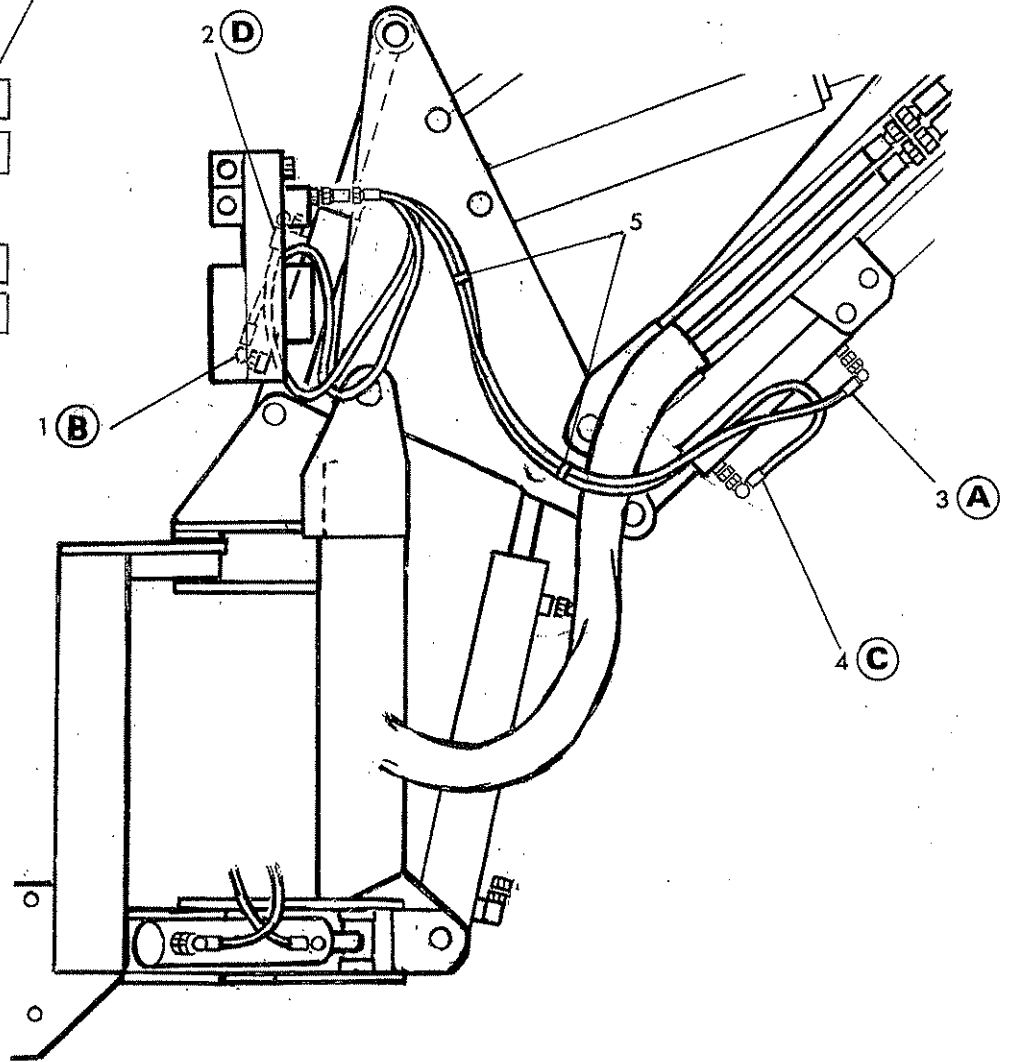
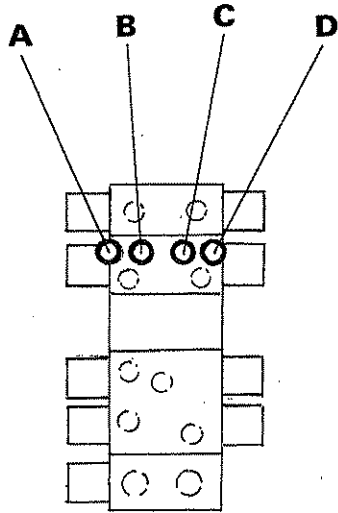


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Ref	Part No	Qty	Description
HOSE INSTALLATIONS SERVICE CIRCUITS - MIDCUT			
1	10.002.27	2	Hose 1/4 BSP x 1700mm long - slew
2	10.001.30	1	Hose 1/4 BSP x 2000mm long - lift base
3	01.002.27	1	Hose 1/4 BSP x 1700mm long - lift gland
4	10.001.20	1	Hose 1/4 BSP x 1000mm long - reach base
5	10.002.25	1	Hose 1/4 BSP x 1500mm long - reach gland
6	10.001.67	2	Hose 1/4 BSP x 5700mm long - angle
7	10.011.31	2	Hose 1" BSP x 2100mm long - R.C.valve - main arm junction
8	85 69 048	2	Hose 1" BSP x 2500mm long - dipper pivot
9	10.017.58	2	Hose 1/4 BSP x 4800mm long - fold
10	85 01 098	2	Hose 1" BSP x 1220mm long - dipper junction - flail head
11	75 50 026	1	Hose sleeve 66" long
12	75 50 373	2	Hose sleeve 70" long
13	42374.13	1	Hose sleeve 650mm long
14	71 35 084	9	Hose tie



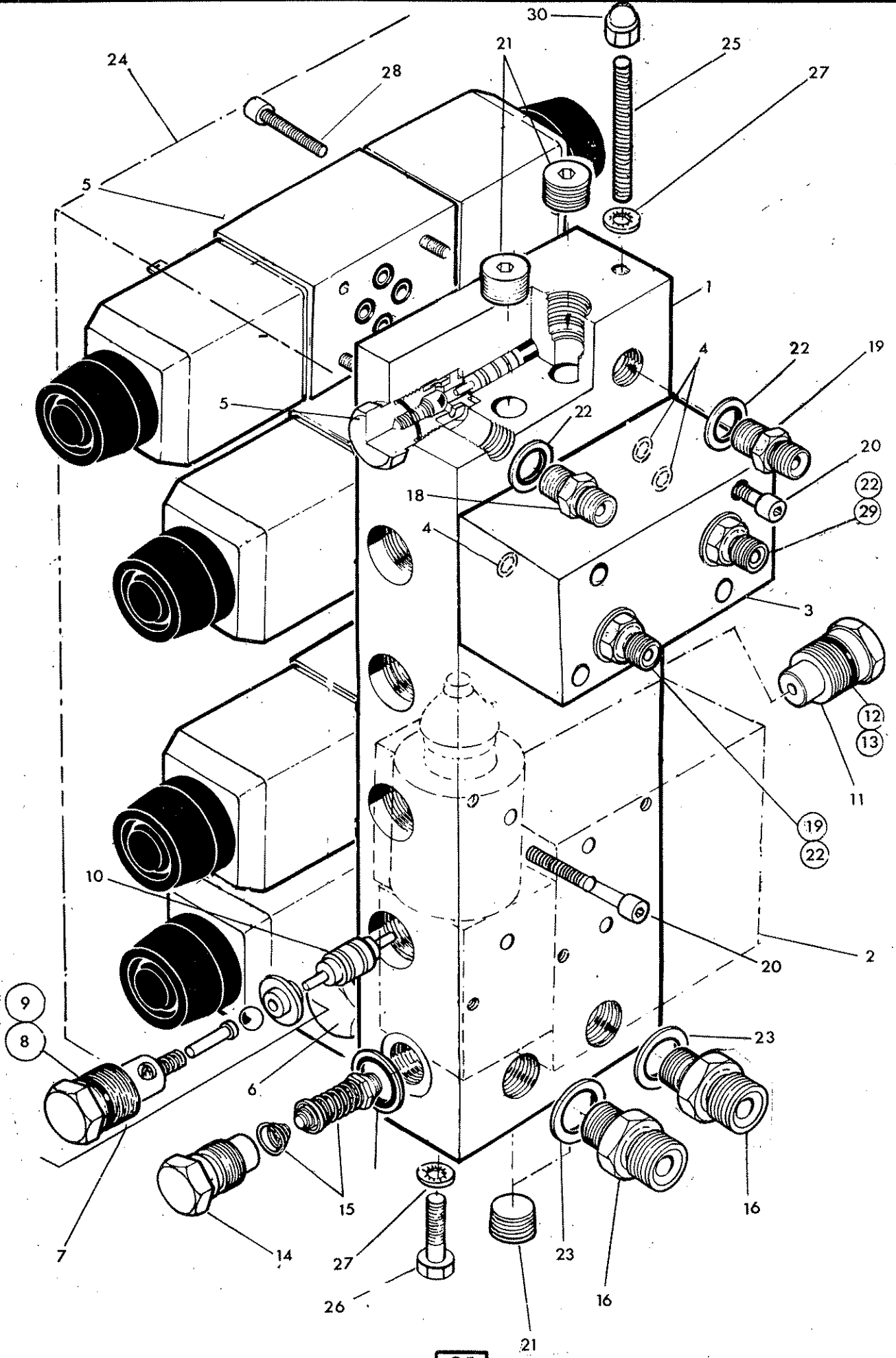


Ref	Part No	Qty	Description
HOSE INSTALLATION - AHC VARIATIONS			
1	10.001.21	1	Hose 1/4 BSP x 1100mm long lift comp base
2	10.001.22	1	Hose 1/4 BSP x 1200mm long lift comp gland
3	10.001.23	1	Hose 1/4 BSP x 1300mm long reach comp base
4	10.001.21	1	Hose 1/4 BSP x 1100mm long reach comp gland
5	71 35 084	4	Hose tie

ELECTRIC VALVE



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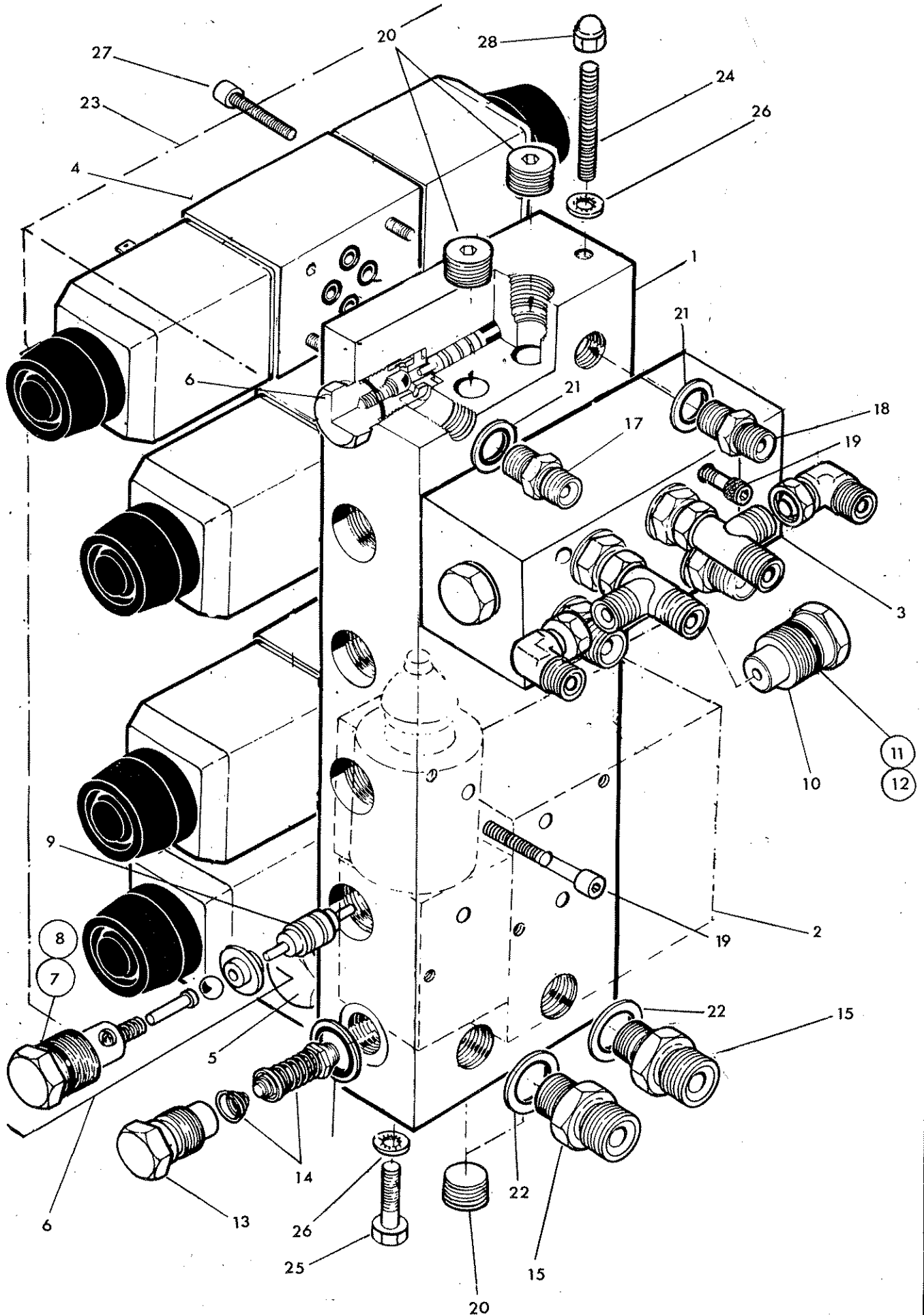


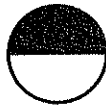


Ref	Part No	Qty	Description
CONTROL VALVE - NON AHC			
	81 30 569		Solenoid/manifold valve assy compr:
1	81 30 346	1	Manifold block
2		1	Slew circuit valve assembly
3	81 30 322	1	Hose plate
4	87 00 511	3	'O' ring
5		4	Double solenoid valve
6		1	Single solenoid valve
7	81 30 090	7	Check valve assy incl: 'O' ring
8	87 00 644	1	'O' ring
9	87 09 644	1	Anti extrusion ring
10	81 30 087	4	Actuator
11	81 30 078	1	Check valve blank
12	87 00 644	1	'O' ring
13	87 09 644	1	Anti extrusion ring
14	81 30 032	1	Relief valve cap
15	81 30 142	1	Relief valve c/w spring (160 bar)
16	60 00 112	2	Union
17	41741.02	1	Edge strip - not illus.
18	81 30 038	1	Restrictor union 'L' reach base
19	81 30 037	2	Restrictor union 'S' reach gland - angle base
20	92 43 082	9	Socket headed capscrew
21	85 82 042	4	Taper plug
22	86 50 102	4	Bonded seal
23	86 50 103	3	Bonded seal
24	42992.01	1	Solenoid cover
25	04.282.10	2	Stud
26	93 13 055	2	Setscrew
27	91 00 305	4	Internal serrated washer
28	92 43 062	20	Capscrew socket headed
29	81 30 103	1	Restrictor union 'T' - angle gland
30	91 00 025	2	Dome nut M10

86 99 197

SEAL KIT



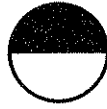


Ref	Part No	Qty	Description
			CONTROL VALVE - AHC
	81 30 570	1	Solenoid/manifold valve assembly compr:
1	81 30 346	1	Manifold block
2		1	Slew circuit valve assembly
3		1	Compensator valve
4		4	Double solenoid valve
5		1	Single solenoid valve
6	81 30 090	7	Check valve assembly incl 'O' ring
7	87 00 644	1	'O' ring
8	87 09 644	1	Anti extrusion ring
9	81 30 087	4	Actuator
10	81 30 078	1	Check valve blank
11	87 00 644	1	'O' ring
12	87 09 644	1	Anti extrusion ring
13	81 30 032	1	Relief valve cap
14	81 30 092	1	Relief valve c/w spring (190 bar)
15	60 00 112	2	Union
16	41741.02	1	Edge strip 360mm long - not illus.
17	81 30 038	1	Restrictor union 'L' reach base
18	81 30 037	1	Restrictor union 'S' reach gland
19	92 43 082	9	Socket headed capscrew
20	85 82 042	4	Taper plug
21	86 50 102	2	Bonded seal
22	86 50 103	3	Bonded seal
23	42992.01	1	Solenoid cover
24	04.282.10	2	Stud
25	93 13 055	2	Setscrew
26	91 00 305	4	Internal serrated washer
27	92 43 062	20	Capscrew socket headed
28	91 00 025	2	Dome nut

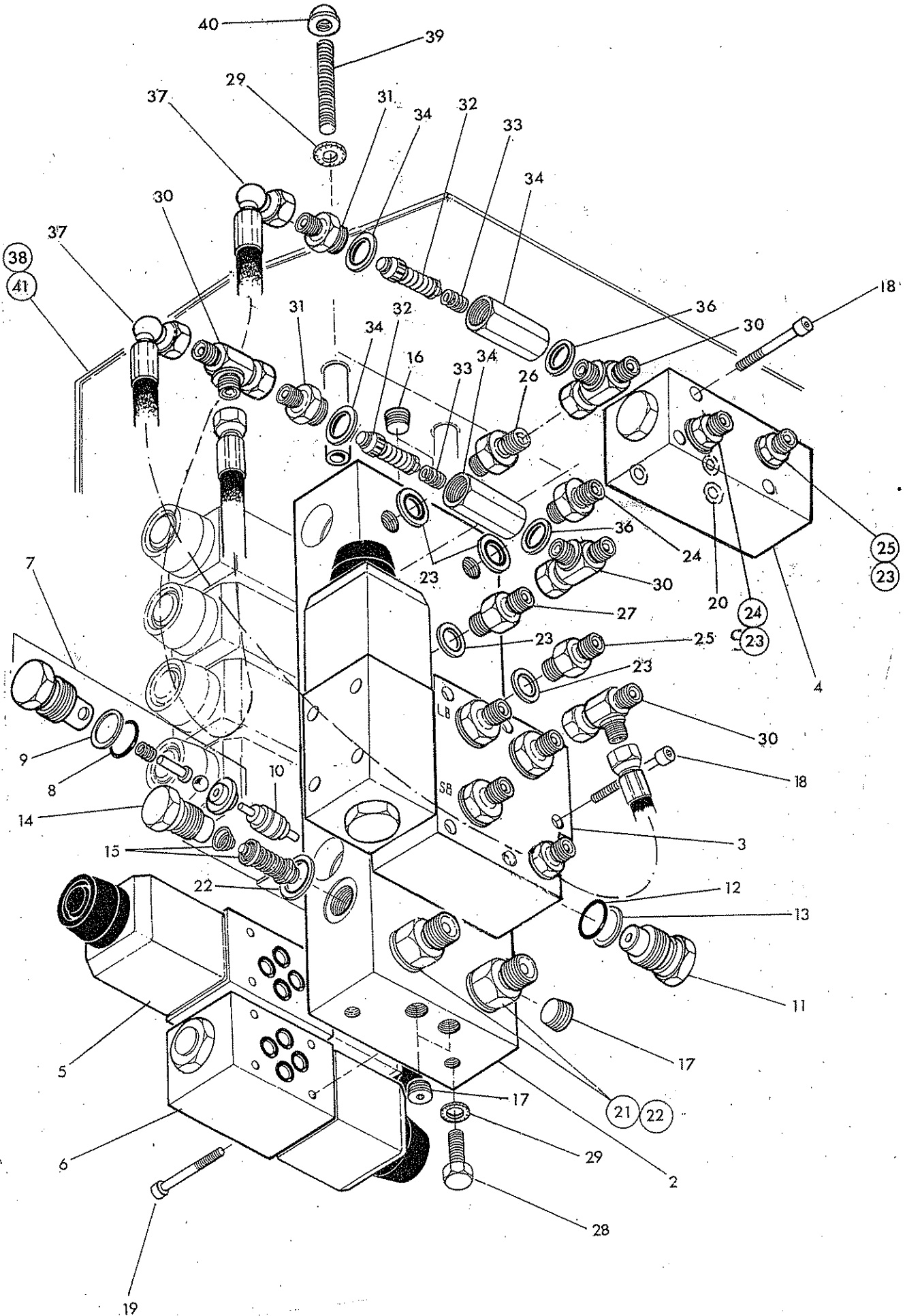
86 99 197

SEAL KIT

CONTROL VALVE - midcut



MCCORMEL



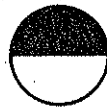


Ref	Part No	Qty	Description
CONTROL VALVE - MIDCUT ARM - STD			
1	74 50 773	1	Solenoid/manifold assy-non AHC compr:
2	81 32 269	1	Manifold block
3		1	Slew circuit valve
4	81 30 322	1	Hose plate
5		5	Double solenoid valve
6		1	Single solenoid valve
7	81 30 090	9	Check valve assembly
8	87 00 644	1	Check valve 'O' ring
9	87 09 644	1	Check valve anti extrusion ring
10	81 30 087	5	Actuator
11	81 30 078	1	Check valve blank
12	87 00 644	1	'O' ring
13	87 09 644	1	Anti extrusion ring
14	81 30 032	1	Relief valve cap
15	81 30 029	1	Relief valve c/w spring - 175 bar
16	85 82 042	3	Taper plug
17	85 82 043	2	Taper plug
18	92 43 082	9	Socket head cap screw
19	92 43 062	24	Socket head cap screw
20	87 00 511	3	'O' ring
21	60 00 112	2	Adaptor
22	86 50 103	2	Bonded seal
23	86 50 102	6	Bonded seal
24	81 30 038	2	Restrictor union
25	81 30 037	2	Restrictor union
26	81 30 105	1	Restrictor union
27	85 81 169	1	Union
28	93 13 055	2	Set screw
29	91 00 305	4	Internal serrated washer
30	85 81 254	4	T piece
31	81 30 083	2	Relief valve body
32	81 30 029	2	Relief valve 190 bar
33	81 16 011	2	Spring
34	81 30 156	2	Relief valve housing
35	86 50 104	2	Bonded seal
36	86 50 102	2	Bonded seal
37	85 35 102	2	Hose 1/4 BSP x 17" long SF - 90F
38	42992.01	1	Valve cover
39	04.282.10	2	Stud
40	91 00 025	2	Dome nut
41	41741.02	1	Cover edge strip 360mm long - not illus.

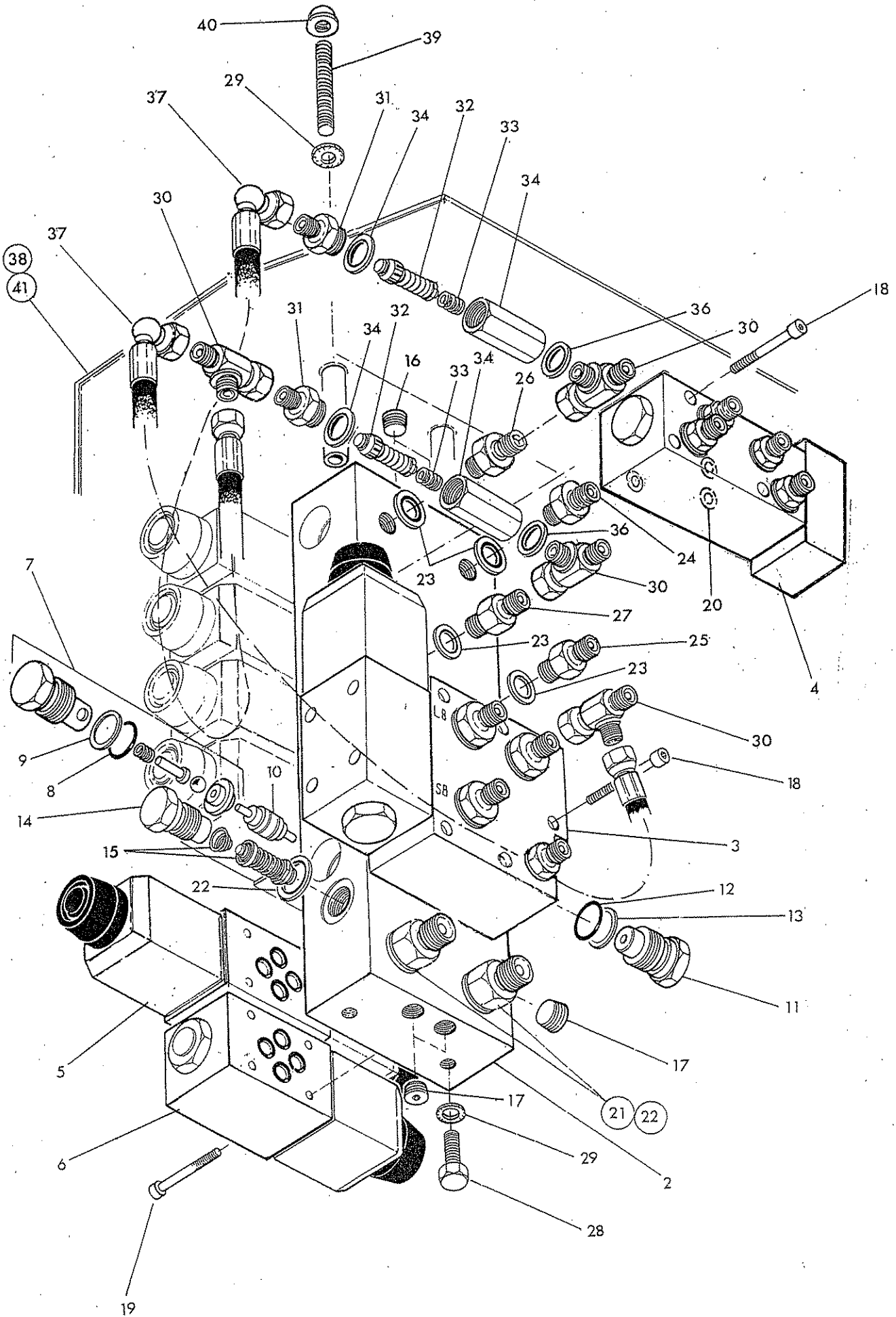
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SEAL KIT

CONTROL VALVE - midcut-AHC



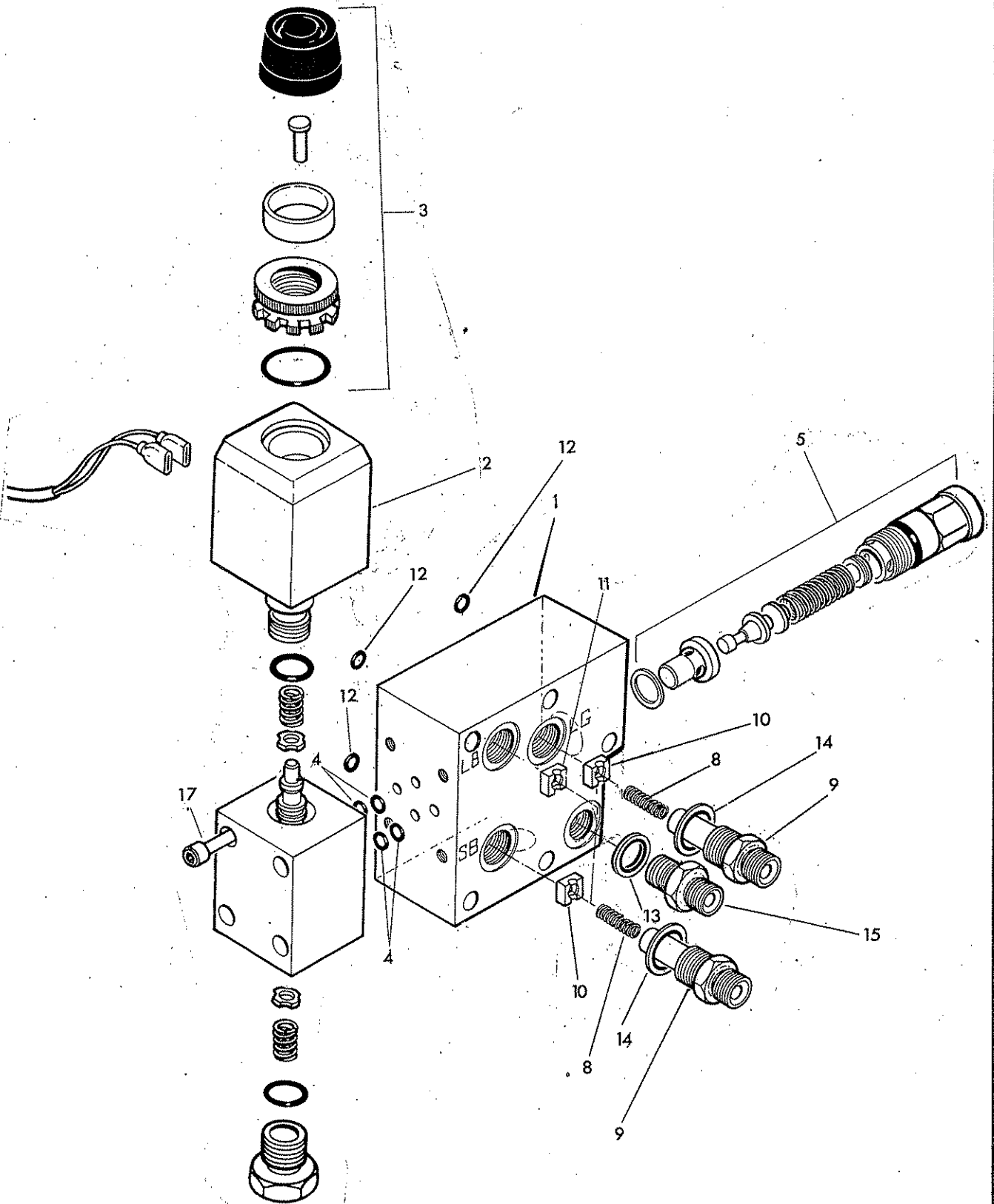
McCormell





Ref	Part No	Qty	Description
CONTROL VALVE - MIDCUT ARM - AHC			
1	74 50 774	1	Solenoid/manifold assy - AHC compr:
2	81 32 269	1	Manifold block
3		1	Slew circuit valve
4		1	Head compensator valve
5		5	Double solenoid valve
6		1	Single solenoid valve
7	81 30 090	9	Check valve assembly
8	87 00 644	1	Check valve 'O' ring
9	87 09 644	1	Check valve anti extrusion ring
10	81 30 087	5	Actuator
11	81 30 078	1	Check valve blank
12	87 00 644	1	'O' ring
13	87 09 644	1	Anti extrusion ring
14	81 30 032	1	Relief valve cap
15	81 30 029	1	Relief valve c/w spring - 175 bar
16	85 82 042	3	Taper plug
17	85 82 043	2	Taper plug
18	92 43 082	9	Socket head cap screw
19	92 43 062	24	Socket head cap screw
20	87 00 511	3	'O' ring
21	60 00 112	2	Adaptor
22	86 50 103	2	Bonded seal
23	86 50 102	4	Bonded seal
24	81 30 038	1	Restrictor union
25	81 30 037	1	Restrictor union
26	81 30 105	1	Restrictor union
27	85 81 169	1	Union
28	93 13 055	2	Set screw
29	91 00 305	4	Internal serrated washer
30	85 81 254	4	T piece
31	81 30 083	2	Relief valve body
32	81 30 029	2	Relief valve 190 bar
33	81 16 011	2	Spring
34	81 30 156	2	Relief valve housing
35	86 50 104	2	Bonded seal
36	86 50 102	2	Bonded seal
37	85 35 102	2	Hose 1/4 BSP x 17" long SF - 90F
38	42992.01	1	Valve cover
39	04.282.10	2	Stud
40	91 00 025	2	Dome nut
41	41741.02	1	Cover edge strip 360mm long - not illus.

86 99 197**SEAL KIT**



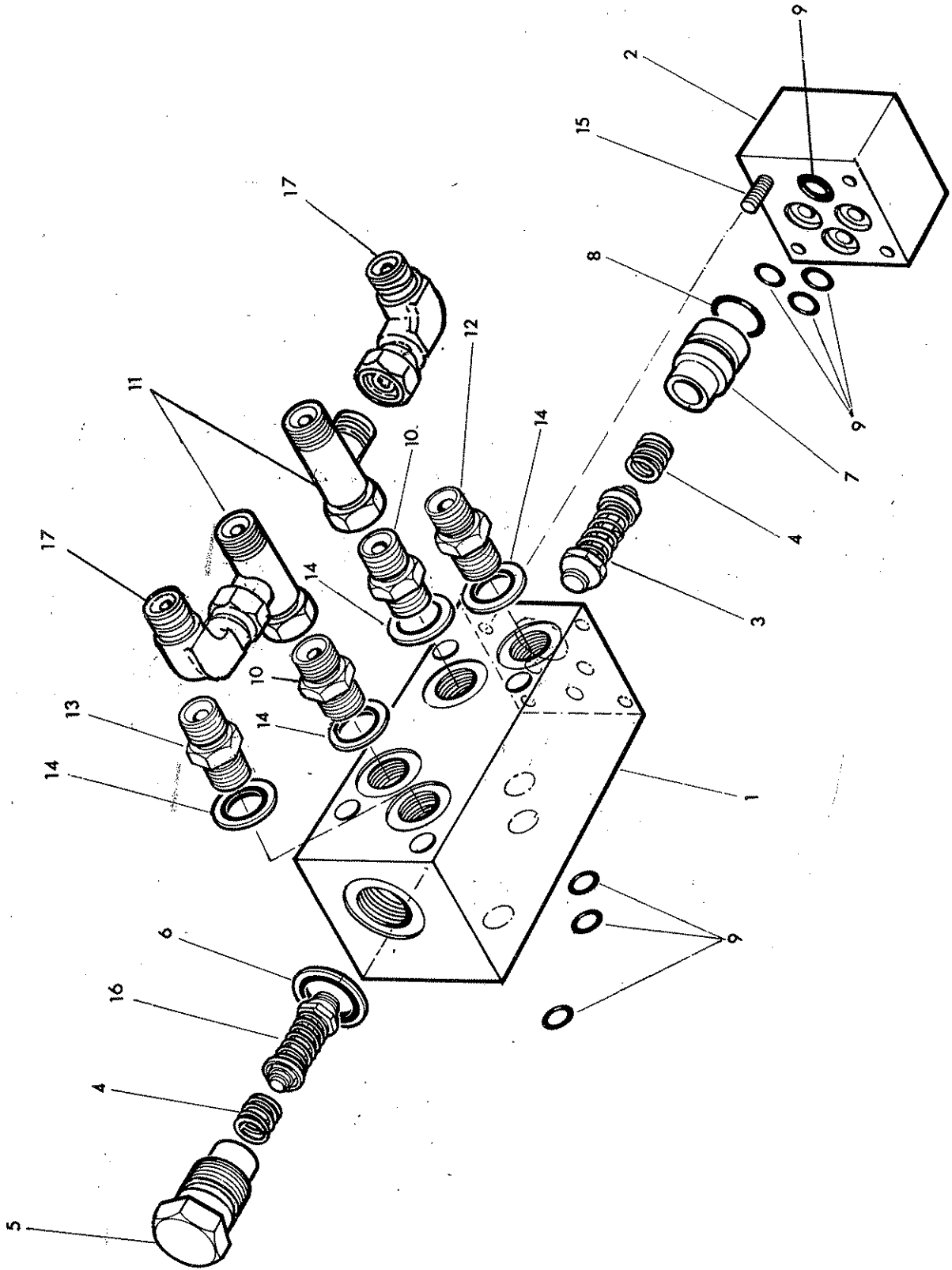


Ref. Part No.	Qty.	Description
81 30 349		SLEW VALVE ASSEMBLY
1 81 30 348	1	Valve block
81 30 457	1	Single solenoid valve incl:
2 81 30 175	1	Coil
3 81 30 176	1	Manual override kit
4 86 00 107	4	'O' ring
5 G381 2540	1	Relief valve assembly 170 bar(2500 PSi)
9 85 81 210	3	Special union
10 81 23 041	2	Restrictor disc red-Lift gland,slew base
11 81 23 043	1	Restrictor disc green-Lift base
12 87 00 511	3	'O' ring
13 86 50 102	1	Bonded seal
14 86 50 103	3	Bonded seal
15 85 81 169	1	Union
16 85 82 041	4	Plug
17 92 43 102	4	Capscrew -socket headed
86 99 224		SOLENOID SEAL KIT

COMPENSATOR VALVE

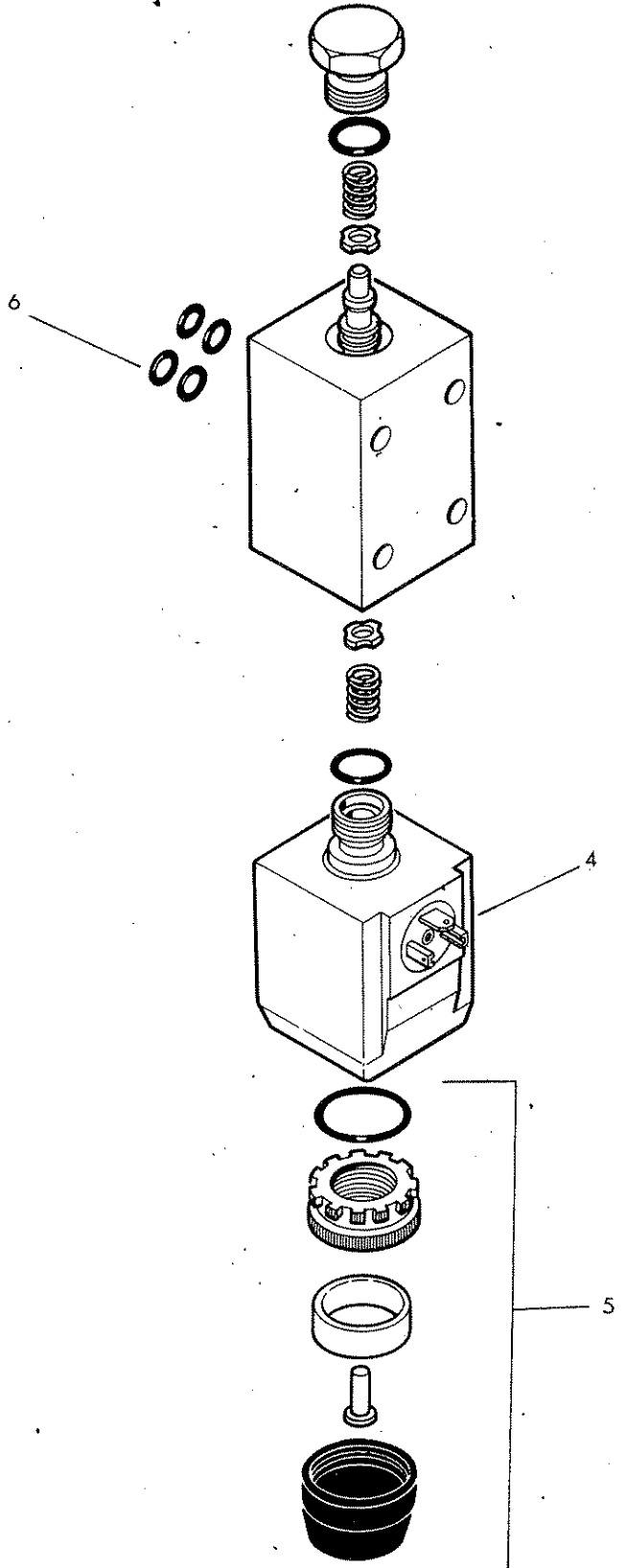
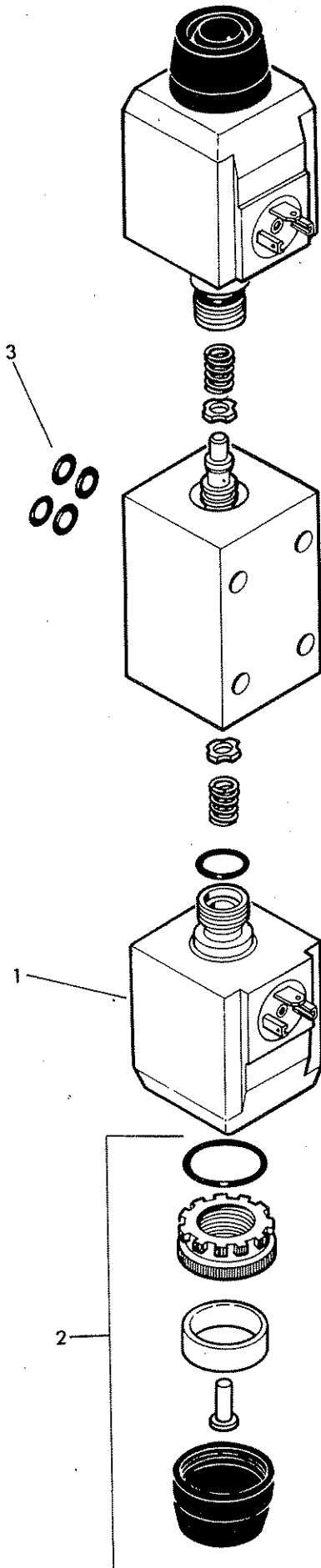


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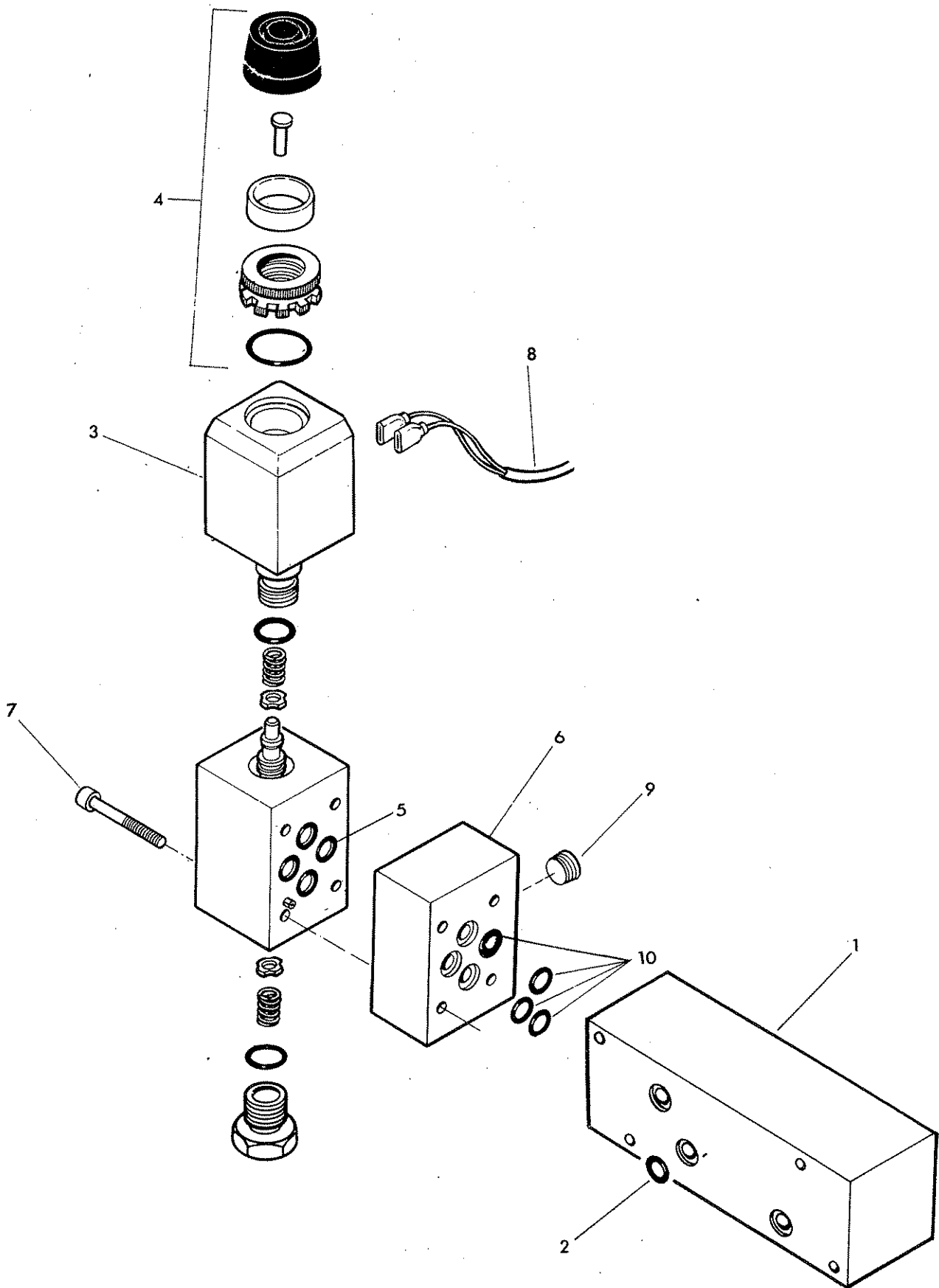


Ref	Part No	Qty	Description
	81 30 362		HEAD COMPENSATOR VALVE
1	81 30 361	1	Valve block
2	81 30 139	1	Blanking plate
3	81 30 141	1	Relief valve cartridge '05'
4	81 16 011	2	Spring
5	81 30 032	1	Relief valve cap
6	86 50 103	1	Bonded seal
7	81 30 140	1	Relief valve plug
8	86 00 109	1	'O' ring
9	87 00 511	7	'O' ring
10	85 81 169	2	Union
11	85 81 254	2	Tee piece MFM
12	81 30 037	1	Restrictor union 'S' - angle gland
13	81 30 038	1	Restrictor union 'L' - angle base
14	86 50 102	4	Bonded seal
15	92 43 062	4	Capscrew - socket headed
16	81 30 164	1	Relief valve cartridge '04'
17	85 81 190	2	Swivel elbow



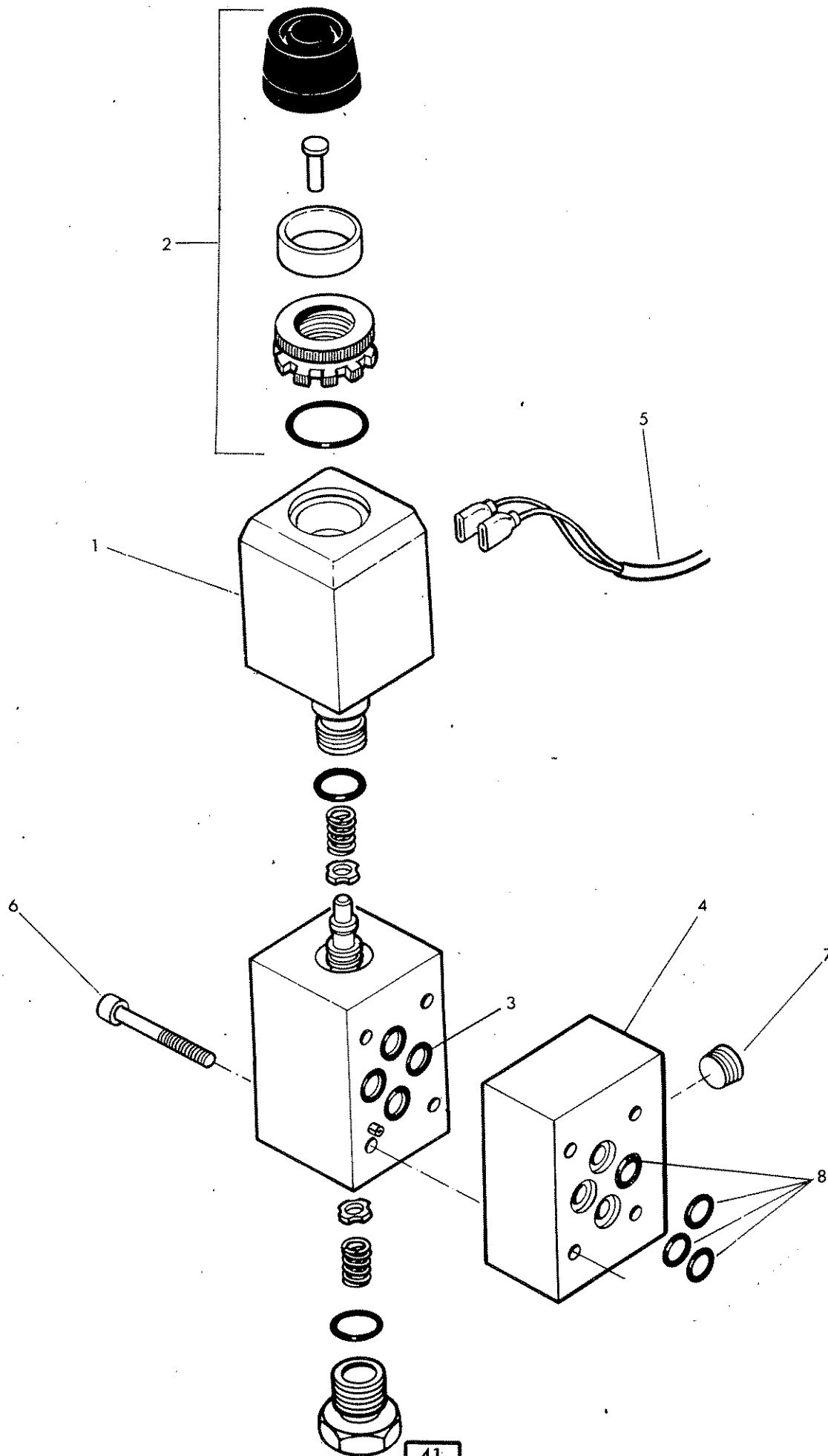


Ref.	Part No.	Qty.	Description
	81 30 455		DOUBLE SOLENOID VALVE
1	81 30 175	2	Coil
2	81 30 176	2	Manual override kit
3	86 00 107	4	'O' ring
	81 30 456		SINGLE SOLENOID VALVE
4	81 30 175	1	Coil
5	81 30 176	1	Manual override kit
6	86 00 107	4	'O' ring
	86 99 224		SEAL KIT





Ref.	Part No.	Qty.	Description
	81 26 261		ANGLE FLOAT KIT - Optional extra for ground cutting
1	81 30 323	1	Float valve block
2	87 00 511	3	'O' ring
	81 30 457	1	Angle float solenoid incl:-
3	81 30 175	2	Coil
4	81 30 176	1	Manual override kit
5	86 00 107	4	'O' ring
6	81 26 280	1	Bridging plate
7	92 43 102	4	Setscrew socket headed
8	84 02 059	1	Wiring harness
9	85 82 041	1	Plug
10	87 00 511	4	'O' ring
	86 99 224		SOLENOID SEAL KIT



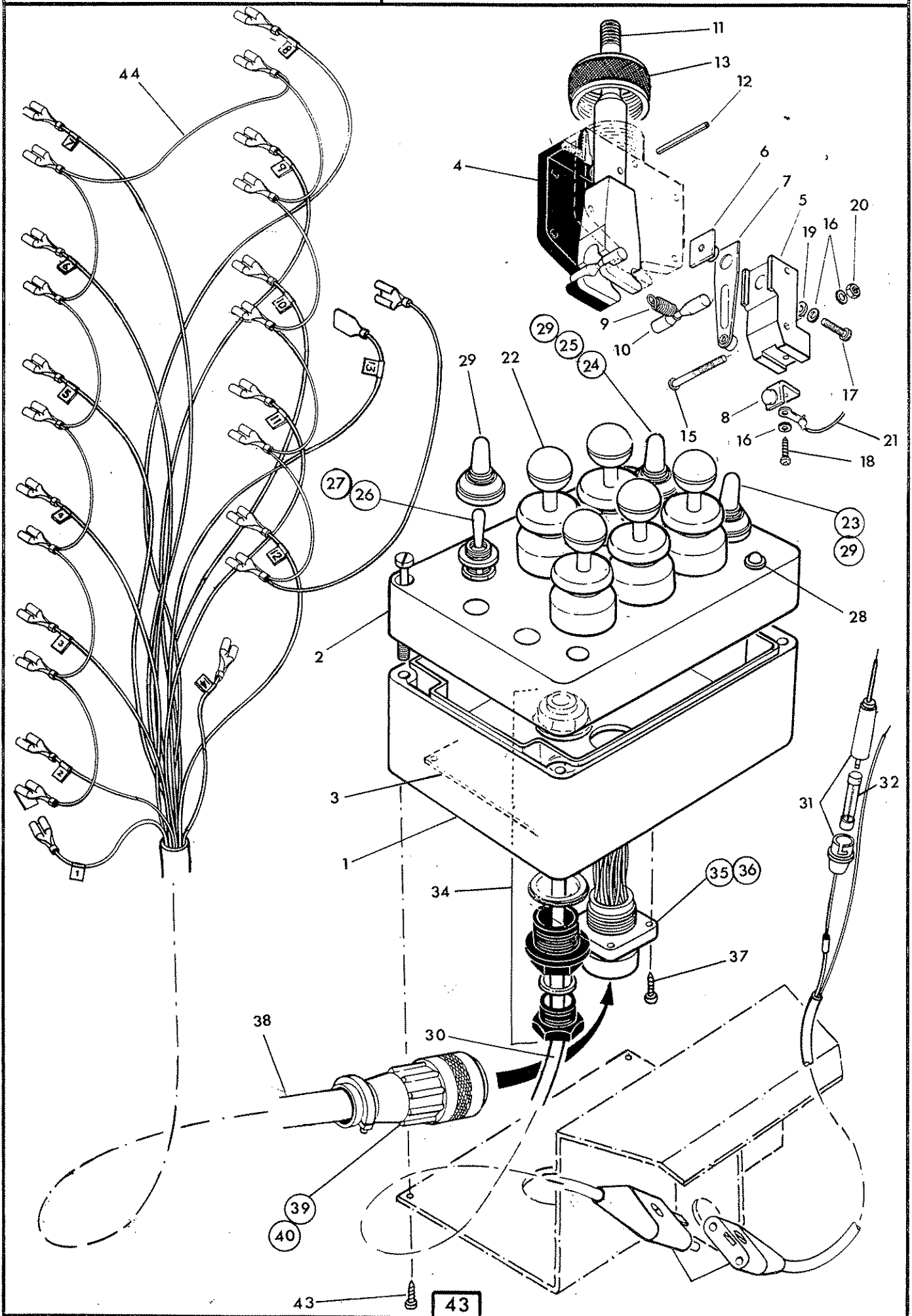


Ref	Part No	Qty	Description
	81 26 281		ANGLE FLOAT KIT - Option extra for ground cutting
	81 30 457	1	Single solenoid valve compr:
1	81 30 175	1	Coil
2	81 30 176	1	Manual override kit
3	87 00 511	4	'O' ring
4	81 26 280	1	Bridging plate
5	84 02 059	1	Wiring harness
6	92 43 102	4	Capscrew - socket headed
7	85 82 041	1	Plug
8	87 00 511	4	'O' ring
	86 99 224		SOLENOID SEAL KIT

SWITCHBOX



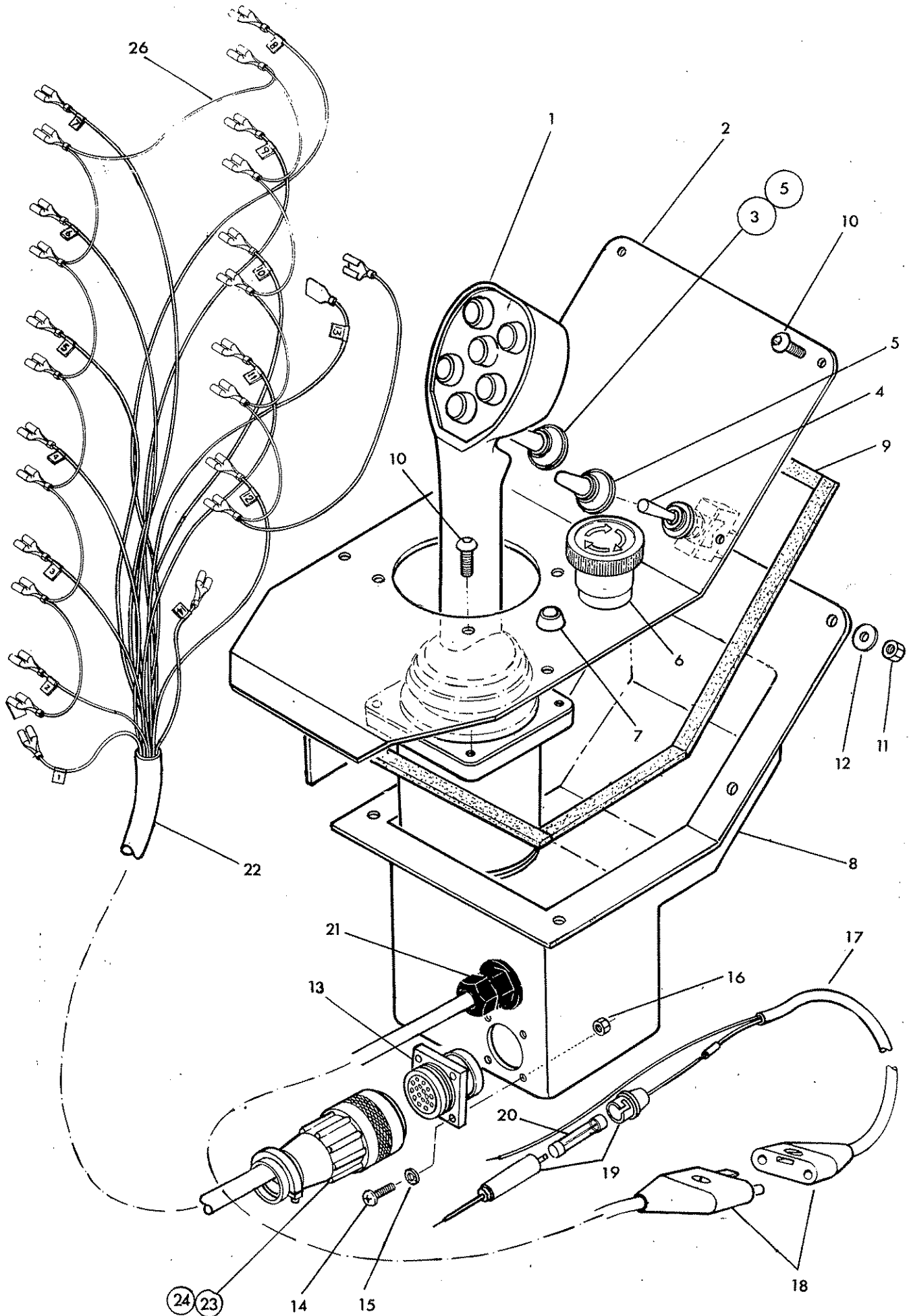
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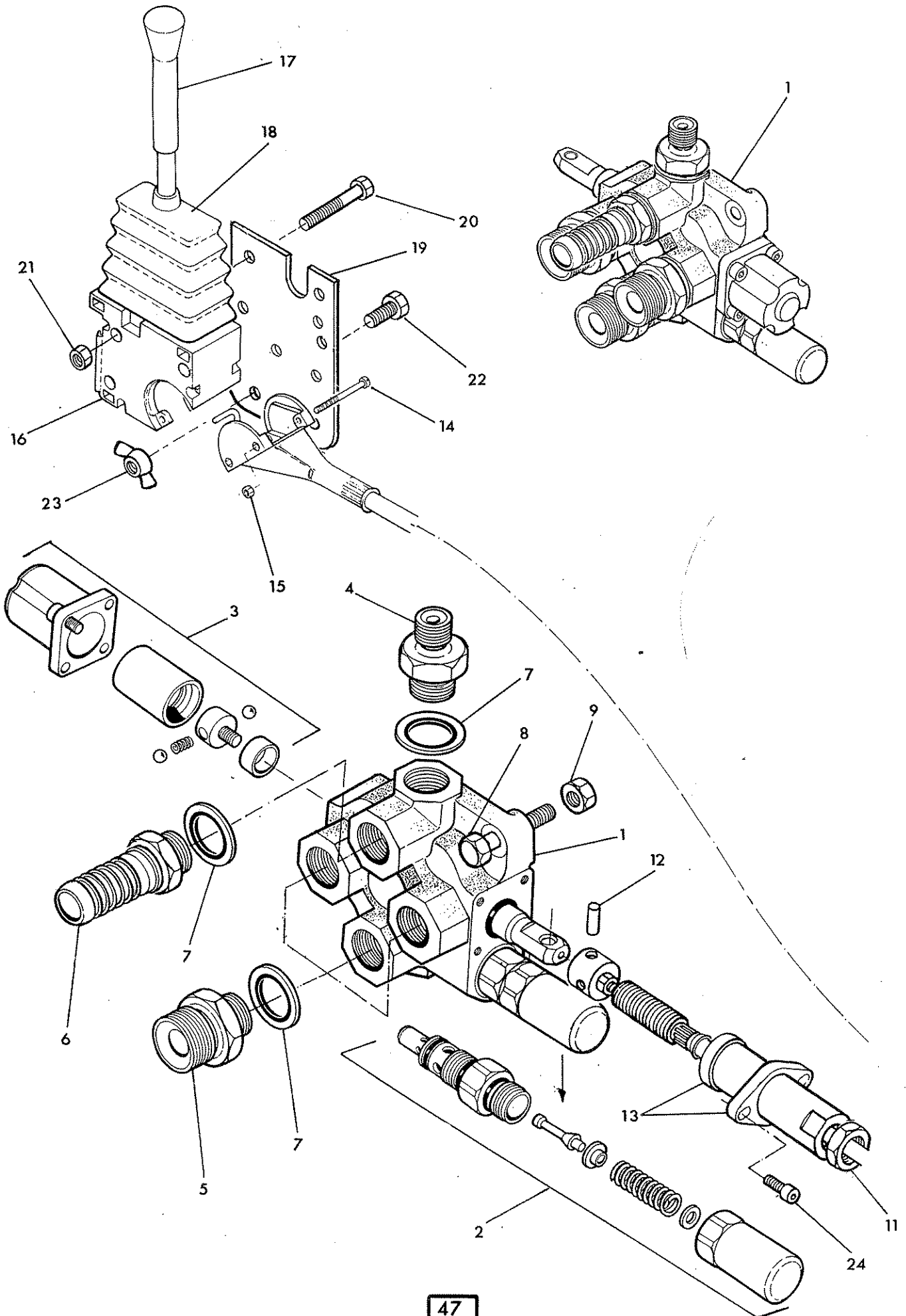
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Ref	Part No	Qty	Description
	41845.03		MULTI 5 LEVER SWITCHBOX FOR GEAR HYDRAULIC MACHINES
1	41845.32	1	Box
2	41845.31	1	Lid c/w screws
3	41845.33	1	Circuit board
	84 02 122	5	Lever switch unit comprising:-
4	84 02 285	1	Switch body
5	84 02 106	2	Contact holder
6	84 02 109	2	Spring contact retainer
7	84 02 113	2	Spring contact
8	84 02 108	2	Fixed contact
9	84 02 101	1	Spring
10	84 02 111	2	Bar
11	84 02 256	1	Lever
12	04 25 320	1	Spring dowel
13	84 02 051	1	Bezel ring
14	84 02 022	1	Lever gaiter
15	92 00 006	4	Screw - posidrive panhead
16	91 00 400	8	External serrated washer
17	92 00 005	2	Screw - posidrive panhead
18	84 02 119	2	Self tapping screw
19	84 02 280	2	Plain washer
20	91 13 000	2	Nut plated
21	41845.34	5	Loom - lever switch
22	84 02 056	5	Knob - black
23	84 02 023	1	Switch - power on/off
24	84 02 182	1	Switch - slew/auto reset
25	41845.35	1	Loom - slew/auto reset switch
26	84 02 197	1	Switch - float
27	41845.37	1	Loom - float switch
28	41845.41	1	L.E.D. and loom
29	84 02 024	3	Weather gaiter
30	84 02 340	1	Power harness incl:
31	84 02 114	1	Fuse holder
32		1	Fuse 20 amp
33	84 02 062	1	Plug and socket
34	84 02 042	1	Gland
35	84 02 189	1	Socket shell
36	84 02 192	17	Pin socket
37	28 00 203	4	Screw
38	84 02 336	1	Wiring loom incl:
39	84 02 188	1	Shell
40	84 02 190	1	Cable clamp
41	84 02 193	1	Special tool - not illus.
42	84 02 345	1	Mounting bracket
43	28 00 243	4	Self tapping screw
44	84 02 132	1	Link harness





Ref. Part No.	Qty.	Description
JOYSTICK CONTROLS FOR STD. ELECTRIC MACHINES		
1	41590-33	1 Joystick incl: circuit board
2	75 50 339	1 Top plate
3	84 02 023	1 Switch - lift/angle float
4	84 02 183	1 Switch - slew/auto reset
5	84 02 024	2 Weathercover
6	84 02 184	1 Emergency stop plunger
7	84 02 174	1 L.E.D. - main power on
8	75 50 300	1 Cover pod
9	72 90 052	1 Sealing strip - cut to suit
10	93 00 125	10 Screw button head
11	91 43 003	6 Self locking nut
12	91 00 103	6 Washer
13	84 02 189	1 Socket
14	92 00 007	4 Screw posidrive pan head
15	91 00 400	4 Ext. serrated washer
16	91 00 013	4 Nut - plated
17	84 02 284	1 Power supply harness incl. plug & fuse
18	84 02 062	1 Plug/socket
19	84 02 114	1 Fuse holder
20	84 02 037	1 Fuse - 10amp
21	84 02 042	1 Gland
22	84 02 336	1 Wiring loom incl.
23	84 02 188	1 Shell
24	84 02 190	1 Cable clamp
25	84 02 193	1 Special tool
26	84 02 132	1 Link harness





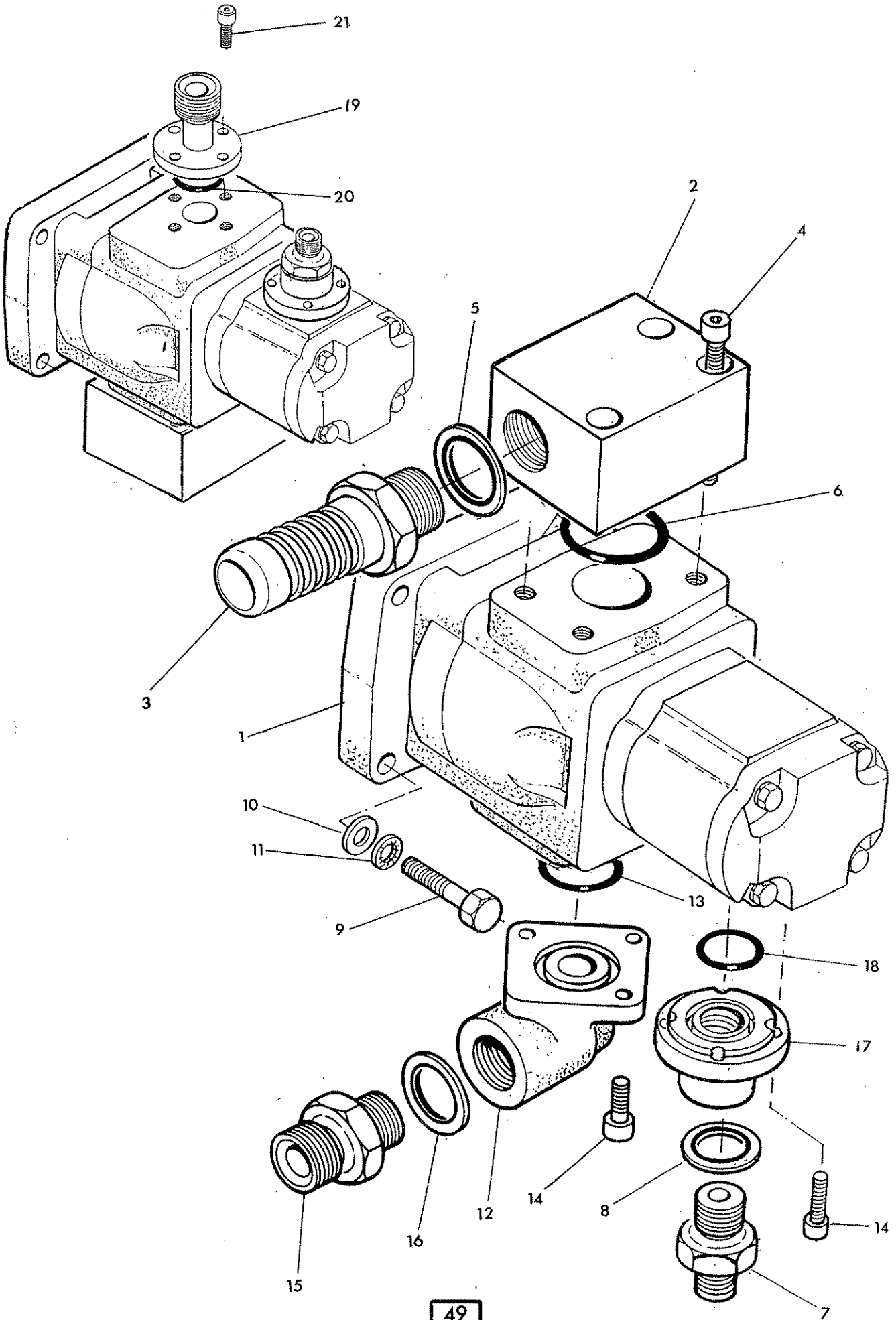
McCORMEL

Ref	Part No	Qty	Description
ROTOR CONTROL VALVE ASSEMBLY			
1	81 25 355	1	Rotor control valve - R hand as exploded
	81 25 385	1	Rotor control valve - L hand as inset
2	81 25 095	1	Relief valve
3	81 25 109	1	Detent assembly
4	85 81 130	1	Adaptor
5	80 02 086	3	Adaptor
6	85 81 246	1	Adaptor low pressure
7	86 50 106	5	Bonded seal
8	92 13 085	2	Bolt
9	91 43 005	2	Self locking nut
10	80 17 045	1	Lever & cable assembly - rotor control compr:
11	80 17 014	1	Locknut
12	80 17 021	1	Pin
13	80 17 018	1	Flange and sleeve
14	93 73 081	2	Screw
15	91 13 001	2	Nut
16	80 17 024	1	Lever pivot box
17	09.968.99	1	Knob
18	80 17 026	1	Weather gaiter
19	76 50 282	1	Lever mounting plate
20	92 13 113	3	Bolt
21	91 43 003	3	Self locking nut
22	93 13 034	2	Setscrew
23	91 93 004	2	Wingnut
24	93 43 023	10	Capscrew
	86 99 218		SEAL KIT

PUMP



MCCORMEL





Ref	Part No	Qty	Description
PUMP ASSEMBLY - Ti R hand as exploded			
1	82 01 700	1	Tandem pump compr:
	82 01 165	1	Large pump
	82 01 166	1	Small pump
2	42142.01	1	Suction flange
3	85 81 260	1	Adaptor low pressure
4	92 43 126	3	Capscrew
5	86 50 109	1	Bonded seal
6	86 00 304	1	'O' ring
7	85 81 110	1	Adaptor
8	86 50 104	1	Bonded seal
9	93 13 074	4	Bolt
10	91 00 104	4	Plain washer
11	91 00 404	7	Shakeproof wahser
12	80 05 052	1	Pressure connection
13	86 00 403	1	'O' ring
14	93 00 147	7	Capscrew
15	80 02 086	1	Adaptor
16	86 50 106	1	Bonded seal
17	42029.01	1	Pressure connection
18	86 00 405	1	'O' ring

PUMP ASSEMBLY - L hand

The parts list is identical with the following exceptions:

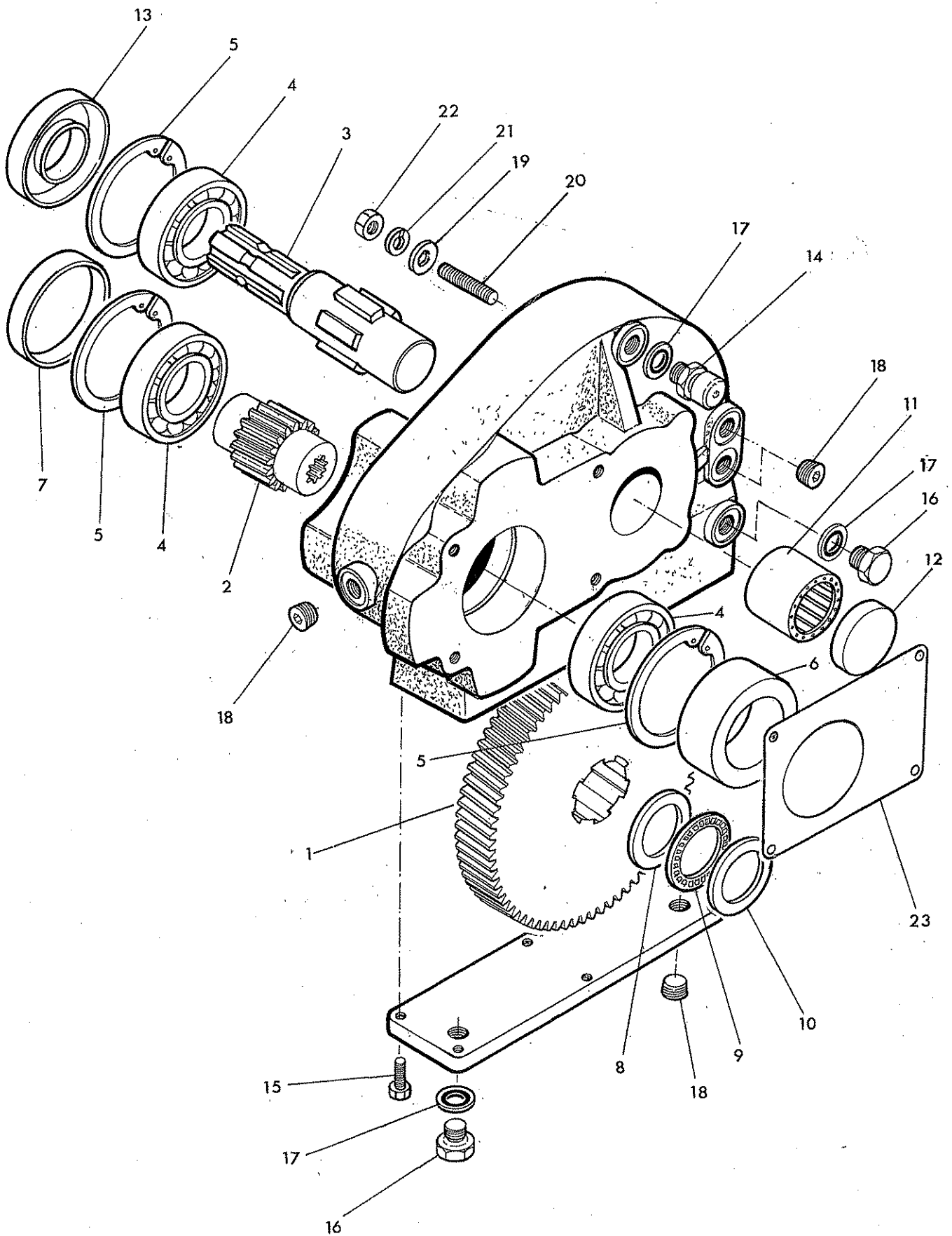
19	80 13 090	1	Pressure connection
20	86 00 117	1	'O' ring
21	93 00 141	4	Capscrew

86 99 234	SEAL KIT
86 29 209	Shaft seal

GEARBOX



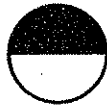
McCORMICK



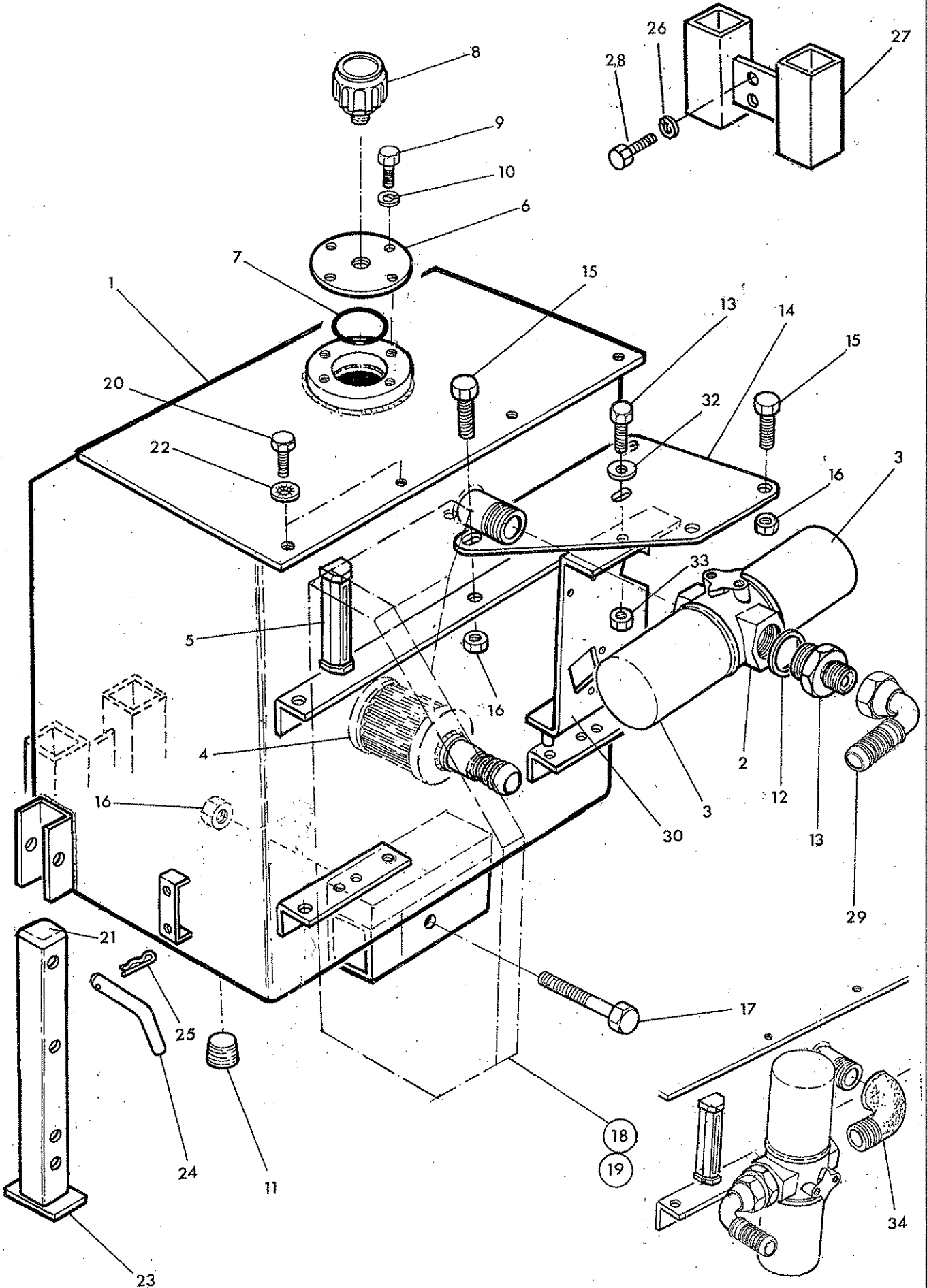


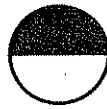
Ref	Part No	Qty	Description
	42693.03		GEARBOX ASSEMBLY incl:
1	80 13 103	1	Gear - 72 teeth
2	42693.33	1	Pinion - 17 teeth
3	42693.34	1	Input shaft
4	06 00 042	3	Bearing
5	42693.36	3	Internal circlip
6	42693.48	1	Spacing collar
7	42693.40	1	Blanking plug
8	42693.45	1	Shaft piloted washer
9	42693.46	1	Thrust roller bearing
10	42693.47	1	Housing piloted washer
11	42693.44	1	Needle roller bearing
12	42693.49	1	Blanking plug
13	42693.39	1	Seal
14	42693.58	1	Breather
15	93 13 044	6	Setscrew
16	85 81 113	2	Hexagon plug
17	86 50 102	3	Bonded seal
18	42693.41	4	Taper plug - socket headed
19	91 00 106	4	Plain washer
20	04 282 17	4	Stud
21	91 00 206	4	Spring washer
22	91 13 006	4	Plain nut
23	80 13 056	1	Gasket

TANK



McCONEL





Ref Part No Qty Description

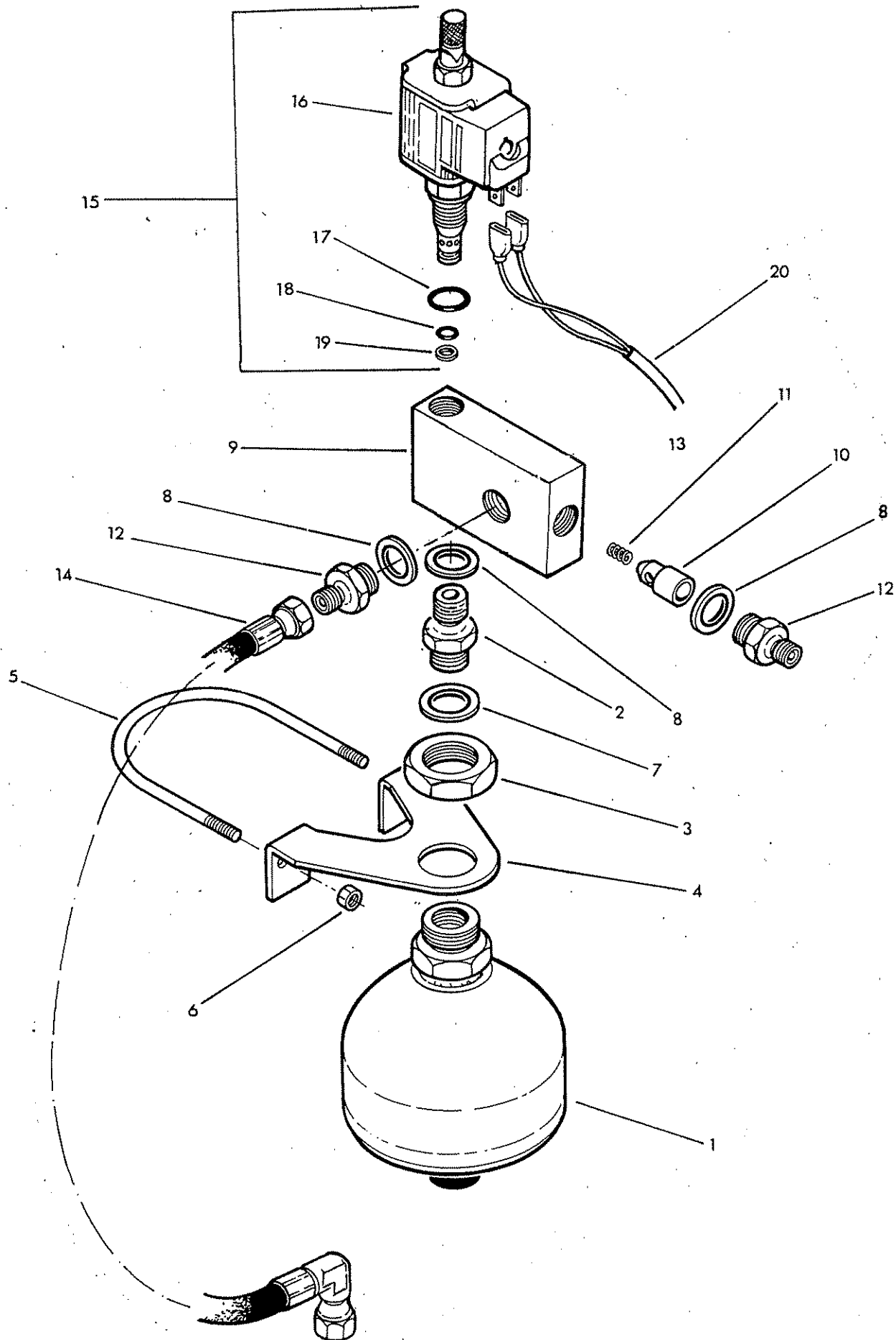
OIL TANK AND FITTINGS

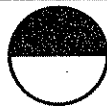
1	41523.03	1	Oil tank	
2	84 01 060	1	Filter head	
3	84 01 041	2	Filter element	
4	84 01 047	1	Strainer	
5	84 01 048	1	Level guage	
6	71 92 063	1	Cover	
7	86 00 151	1	'O' ring	
8	84 01 063	1	Breather	
9	93 13 054	4	Setscrew	
10	91 00 204	4	Spring washer	
11	85 81 203	1	Drain plug	
12	86 50 224	1	Bonded seal	
13	85 81 291	1	Adaptor	
14	41553.02	1	Tank stay bracket	
15	93 13 066	4	Setscrew	
16	91 43 006	5	Self locking nut	
17	92 13 226	1	Bolt	
18	41529.03	1	Tank fairing - L hand	
19	41529.04	1	Tank fairing - R hand	
20	93 13 035	2	Setscrew	
21	71 91 108	2	Plastic bung	
22	91 00 305	2	Shakeproof washer	
23	41773.01	2	Stand leg	
24	71 92 023	2	Leg pin	
25	04 31 105	2	Spring cotter	
26	91 00 205	2	Spring washer	
27	41743.01	1	Leg stow bracket	
28	91 13 065	2	Setscrew	
29	71 14 005	1	Swept elbow	low pressure
30	43026.01	1	Valve mounting bracket] cable machines only
31	93 13 045	1	Setscrew	
32	91 00 105	1	Plain washer	
33	93 43 005	1	Self locking nut	
34	85 81 104	1	90 degrees elbow	AHC only

LIFT FLOAT KIT



McCORMEL



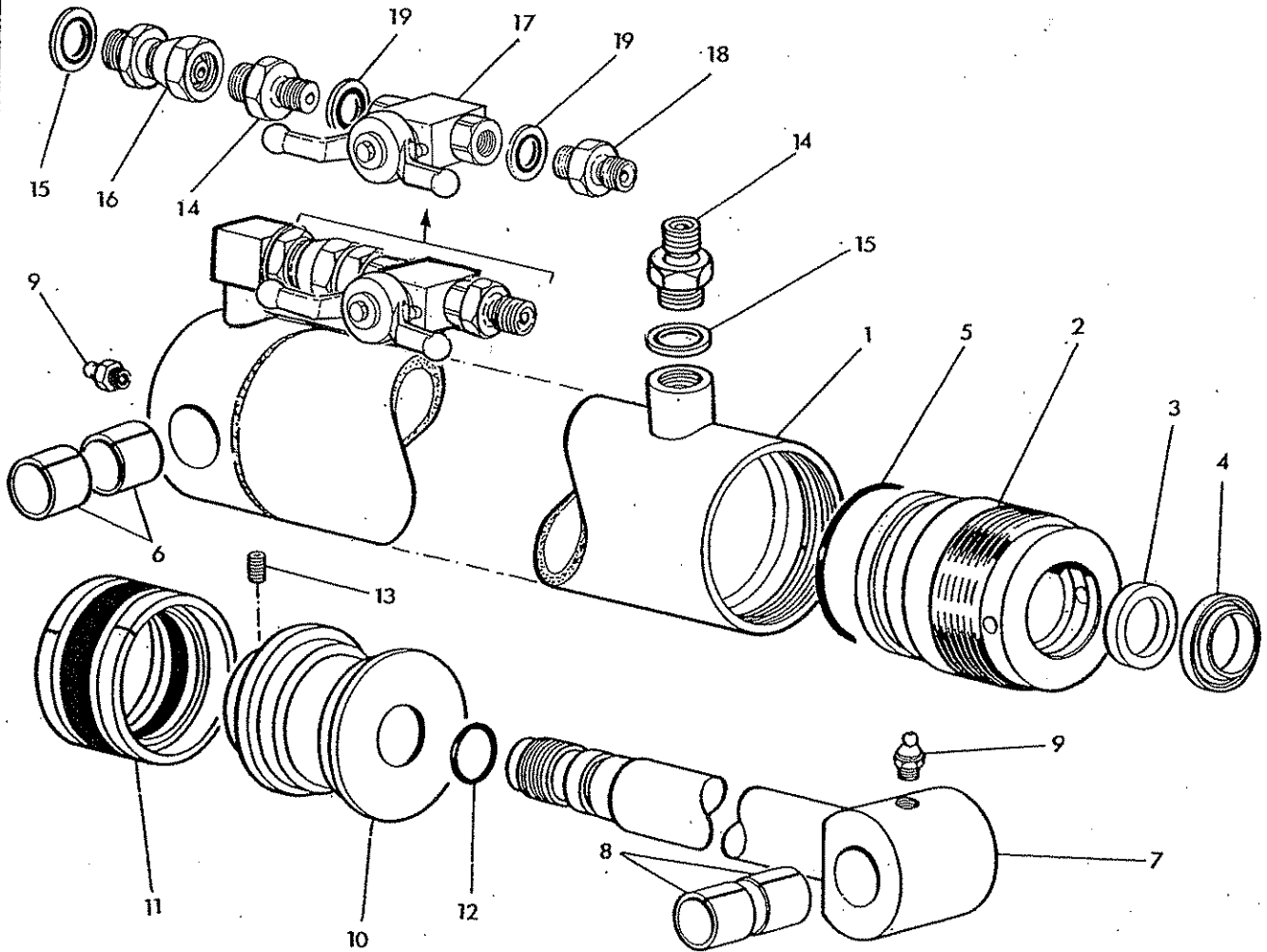


Ref	Part No	Qty	Description
	81 26 308		LIFT FLOAT KIT - Quick response
1	81 26 042	1	Accumulator
2	G241 0380	1	Adaptor
3	81 26 035	1	Bulkhead nut
4	81 26 309	1	Bracket
5	81 26 039	1	U bolt
6	91 43 004	2	Self locking nut
7	86 50 322	1	Bonded seal
8	86 50 103	3	Bonded seal
9	81 26 287	1	Control block
10	81 26 037	1	Response piston
11	81 16 011	1	Spring
12	85 81 115	2	Adaptor
13	12 90 061	1	Operating sticker
14	85 35 012	1	Hose 1/4 BSP x 12 long SF-90F
15	81 30 183	1	Poppet valve including:
16	81 30 184	1	Coil
17	87 00 017	1	'O' ring
18	87 00 511	1	'O' ring
19	87 09 511	1	Anti extrusion ring
20	84 02 159	1	Cable

LIFT RAM



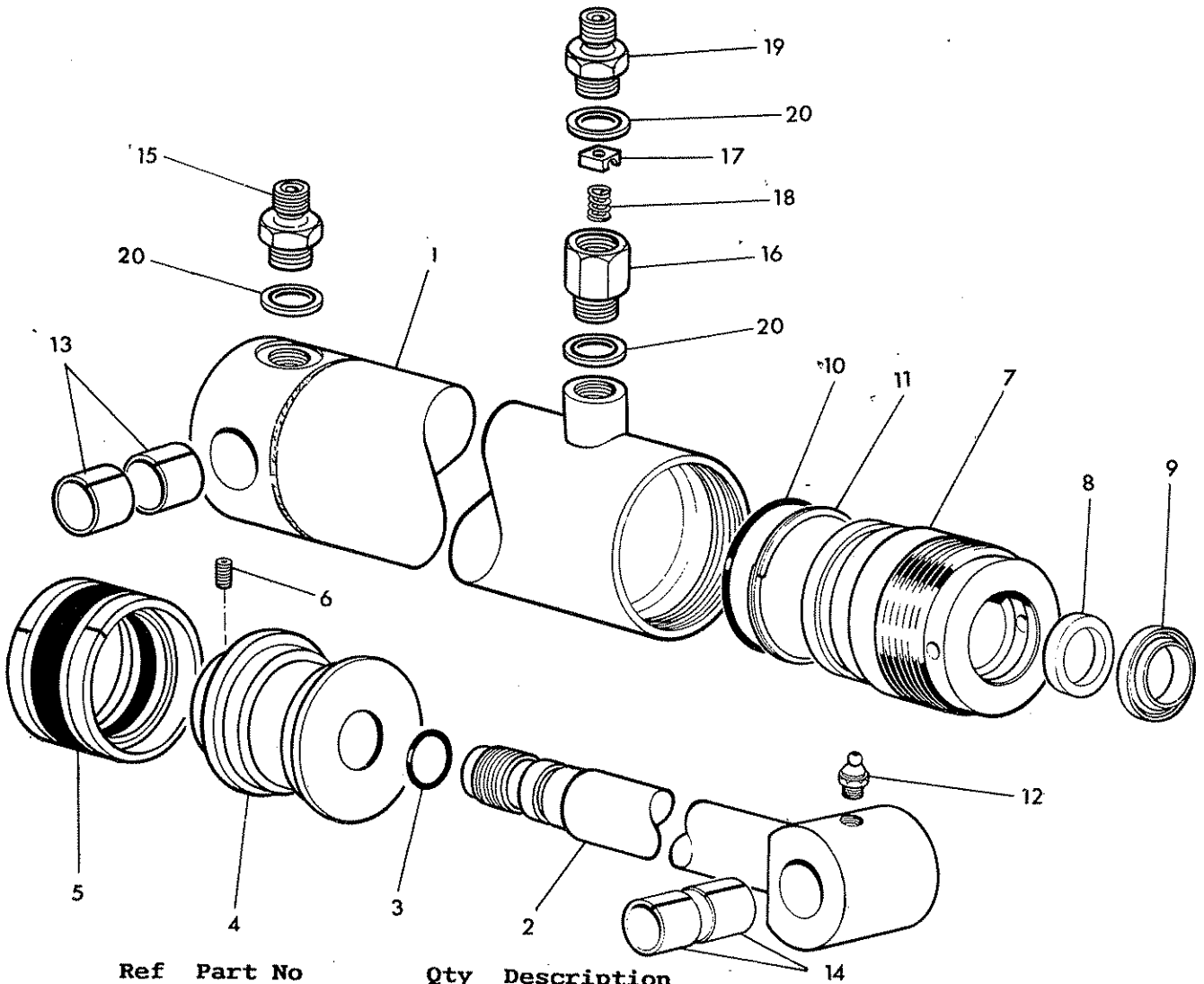
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Ref	Part No	Qty	Description
	42095.02		LIFT RAM ASSEMBLY
	42095.01	1	Lift ram compr:
1	42095.31	1	Barrel
2	42095.38	1	Gland housing
3	86 29 158	1	Gland seal
4	86 29 152	1	Rod wiper
5	86 00 742	1	'O' ring
6	71 01 134	2	Bush
7	42968.01	1	Rod
8	60 12 032	2	Bush
9	09 01 121	2	Greaser
10	42095.34	1	Piston
11	86 38 742	1	Piston seal
12	86 00 119	1	'O' ring
13	93 63 023	1	Grubscrew
14	85 81 115	2	Union
15	86 50 103	2	Bonded seal
16	85 81 178	1	Swivel union
17	81 30 181	1	Tap
18	85 81 169	1	Union
19	86 50 102	2	Bonded seal

86 99 249

SEAL KIT



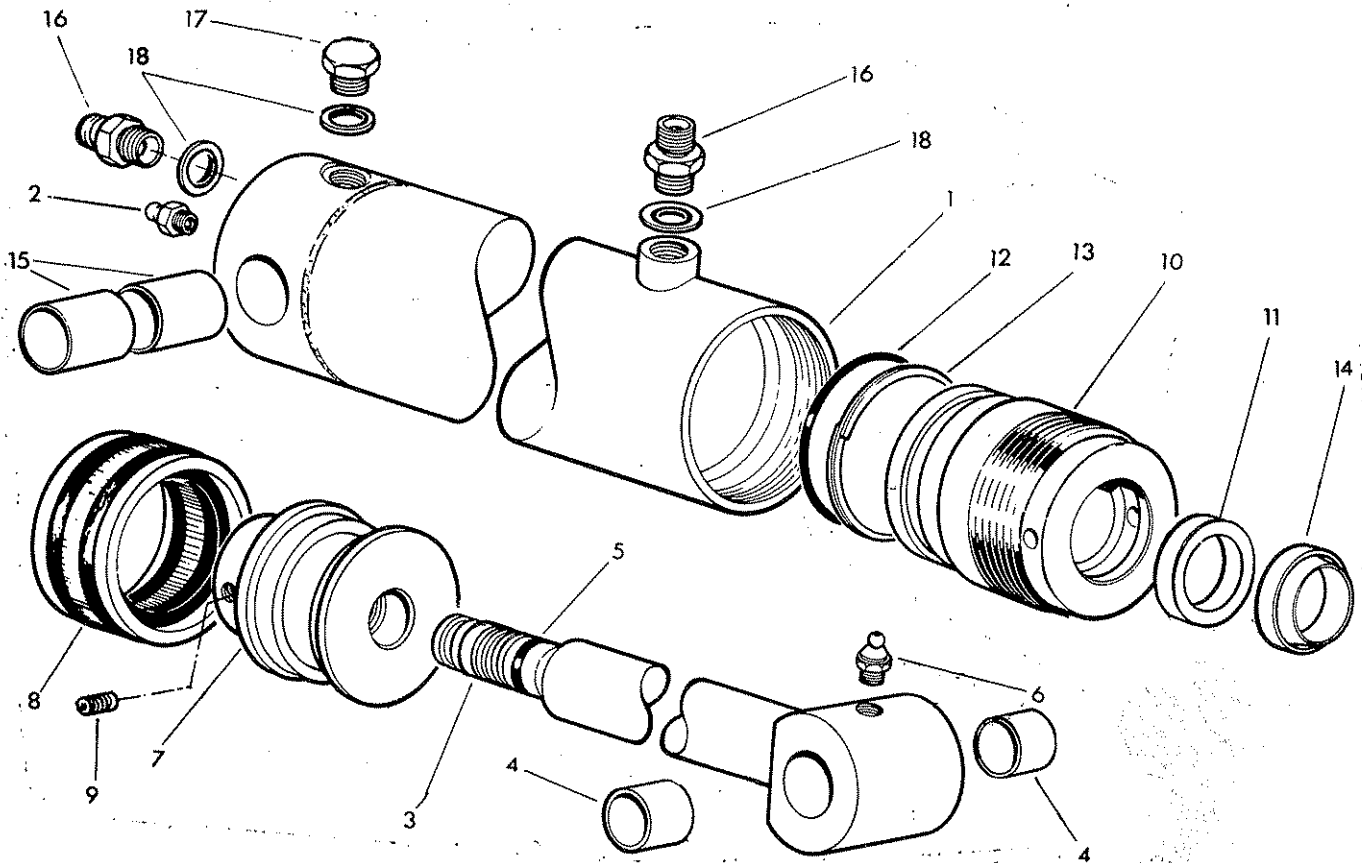
Ref	Part No	Qty	Description
	41565.03		SLEW RAM ASSEMBLY
1	41565.31	1	Cylinder
2*	41565.33	1	Rod
3	86 00 119	1	'O' ring
4*	71 35 004	1	Piston
5	86 38 740	1	Piston seal
6*	93 63 023	1	Grubscrew socket head
7	71 35 282	1	Gland housing
8	86 29 164	1	Gland seal
9	86 29 147	1	Wiper seal
10	87 00 740	1	'O' ring
11	87 09 740	1	Anti extrusion ring
12	09 01 121	1	Greaser straight
13	71 01 134	2	Bush - cylinder
14	60 12 032	2	Bush - rod
15	85 81 115	1	Adaptor
16	85 81 208	1	Restrictor body
17	81 23 041	1	Restrictor disc - red
18	81 16 011	1	Spring
19	85 81 145	1	Adaptor
20	86 50 103	3	Bonded seal

86 99 187

SEAL KIT

*** Assembly note:**

Assemble piston onto rod using 'Permabond A113' or similar medium strength thread locking compound. Tighten grubscrew firmly and centre punch.



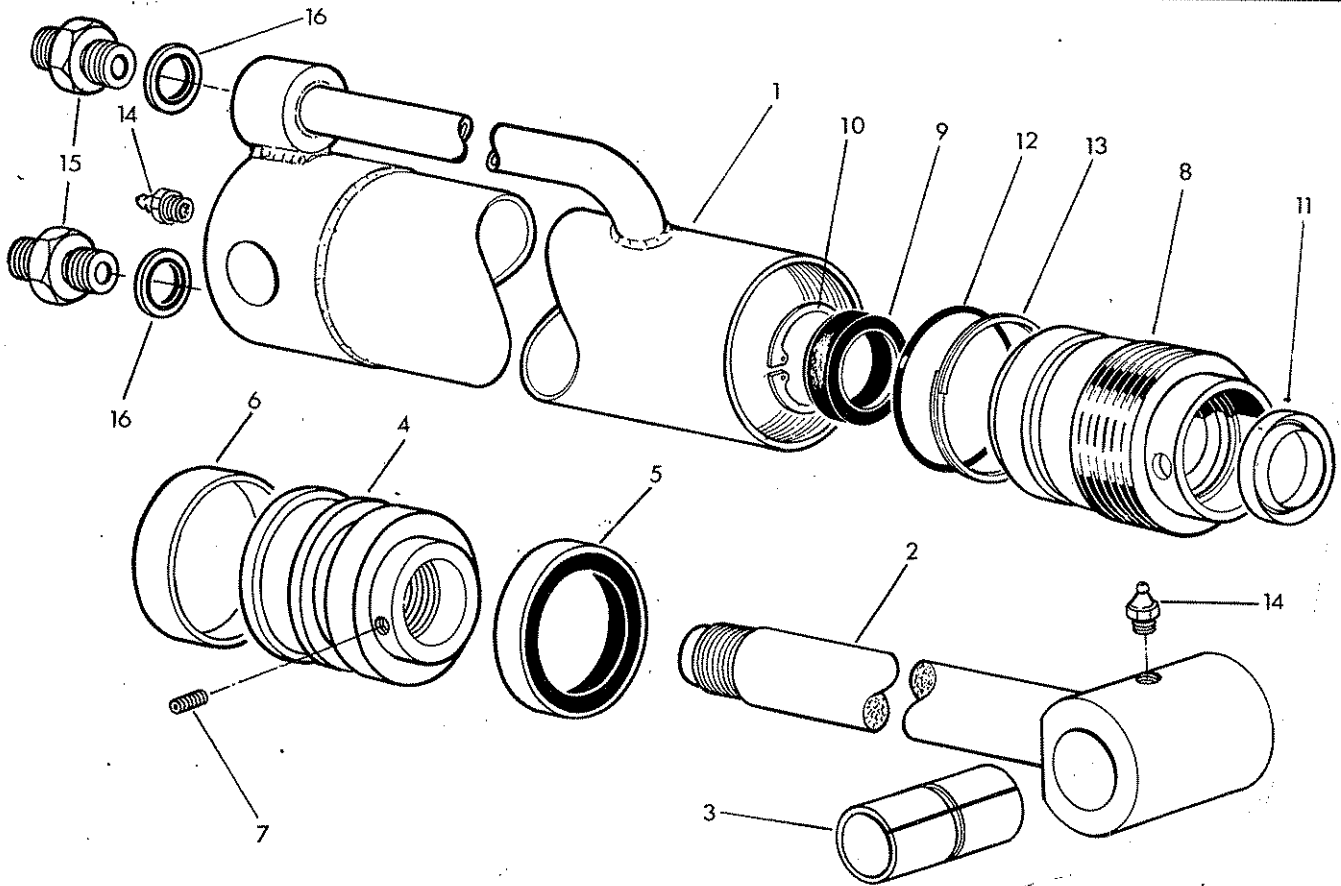
Ref.	Part No.	Qty.	Description
	71 93 334		REACH RAM ASSEMBLY
1	71 35 283	1	Ram cylinder
2	09 01 121	1	Greaser - straight
3	71 93 029	1	Piston rod
4	60 12 032	2	Bush
5	86 00 119	1	'O' ring
6	09 01 121	1	Greaser - straight
7	71 35 004	1	Piston c/w seal and grub screw
8	86 38 740	1	Piston seal
9	93 63 023	1	Grub screw socket headed
10	71 35 282	1	Gland housing
11	86 29 164	1	Gland seal
12	87 00 740	1	'O' ring
13	87 09 740	1	Anti extrusion ring
14	86 29 147	1	Wiper
15	71 01 134	2	Bush - ram base
16	85 81 115	2	Union
17	80 03 001	1	Plug
18	86 50 103	3	Bonded seal
	86 99 187		SEAL KIT

Assembly note Fully tighten item 9 and centre pop edge of hole to retian.

ANGLING RAM



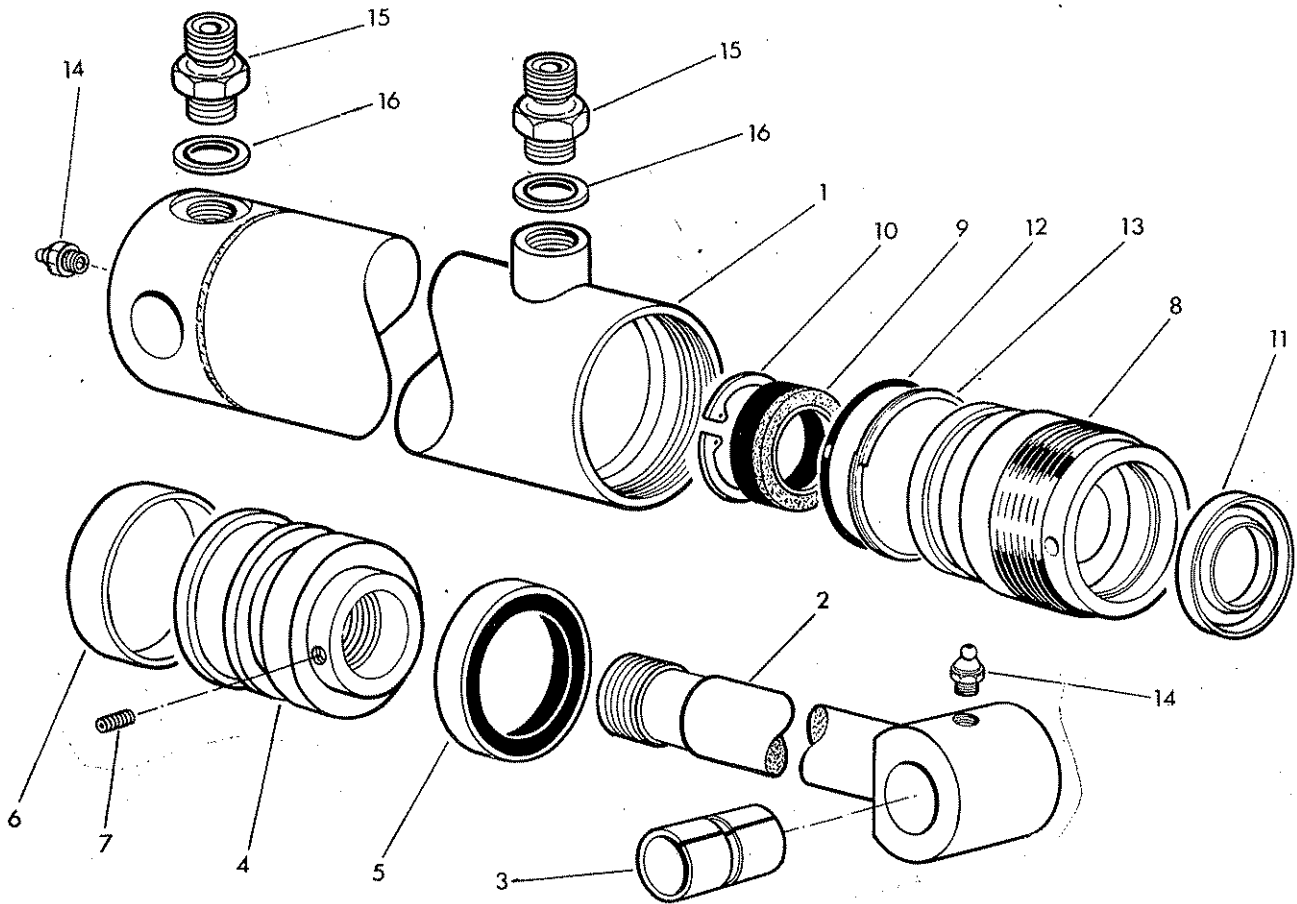
McCORMEL



Ref.	Part No.	Qty.	Description
	75-60-344		ANGLING RAM ASSEMBLY
1	71-35-292	1	Cylinder
2	71-35-009	1	Rod
3	71-05-050	1	Bush
4	75-60-095	1	Piston
5	86-29-187	1	Piston seal
6	86-29-188	1	Bearing ring
7*	93-63-023	1	Grub screw socket head
8	71-35-291	1	Gland housing
9	86-29-148	1	Gland seal
10	04-16-240	1	Internal circlip
11	86-29-149	1	Wiper seal
12	86-00-302	1	'O' ring
13	86-09-302	1	Anti extrusion ring
14	09-01-121	2	Greaser
15	85-81-169	2	Union
16	86-50-102	2	Bonded seal
	86-99-188		SEAL KIT

*** Assembly note**

Tighten fully and centre punch edge of hole to secure.



Ref.	Part No.	Qty.	Description
	75-60-356		COMPENSATOR RAM ASSEMBLY
1	71-95-305	1	Cylinder
2	71-95-010	1	Rod
3	71-05-050	1	Bush
4	75-60-095	1	Piston
5	86-29-187	1	Piston seal
6	86-29-188	1	Bearing ring
7	93-63-023	1	Grubscrew socket head
8	71-35-291	1	Gland housing
9	86-29-148	1	Gland seal
10	04-16-240	1	Internal circlip
11	86-29-149	1	Wiper seal
12	86-00-302	1	'O' ring
13	86-09-302	1	Anti extrusion ring
14	09-01-121	2	Greaser
15	85-81-169	2	Union
16	86-50-102	2	Bonded seal

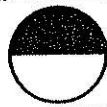
86-99-188

SEAL KIT

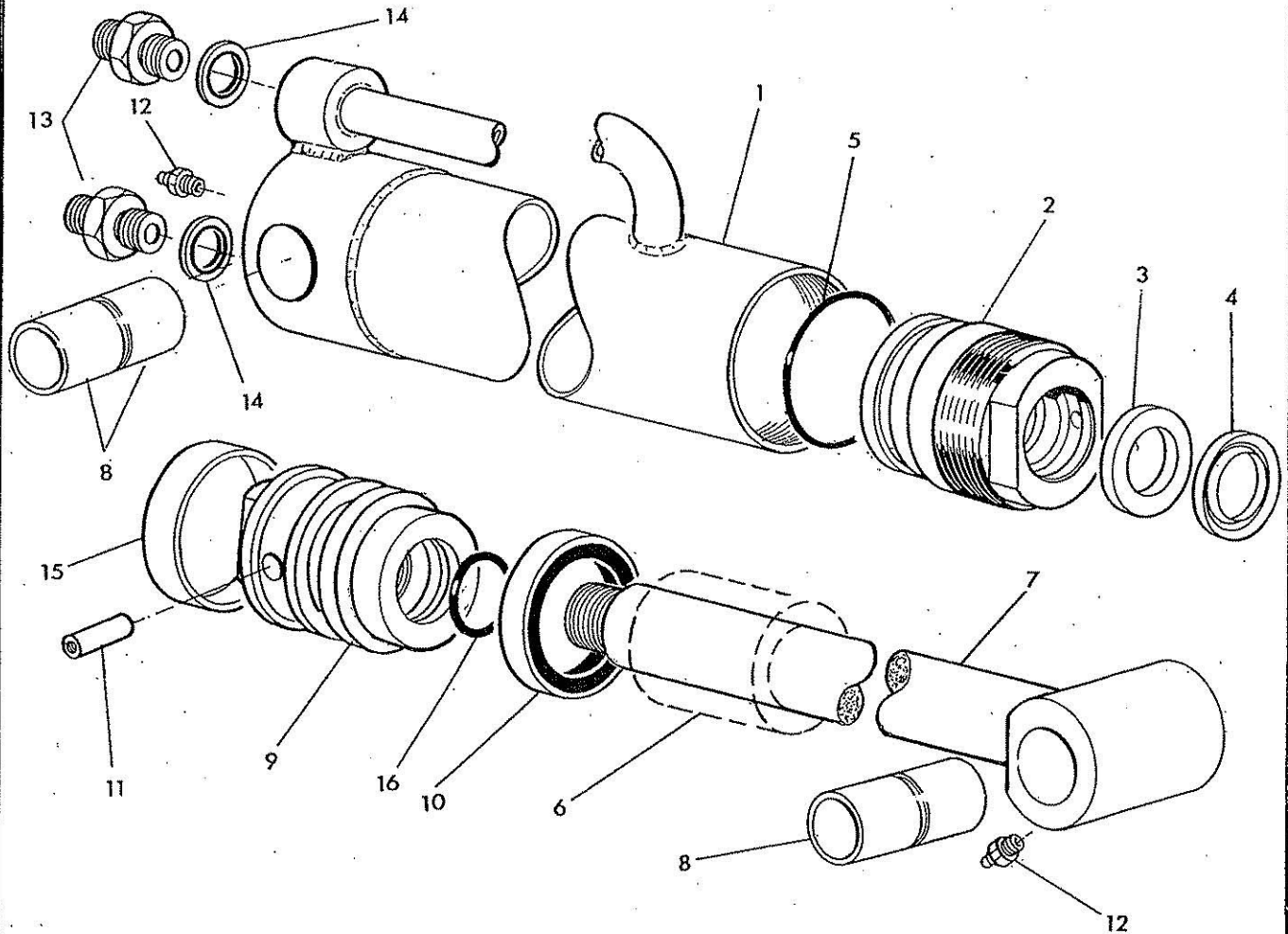
*** Assembly note**

Tighten fully and centre punch edge of hole to secure.

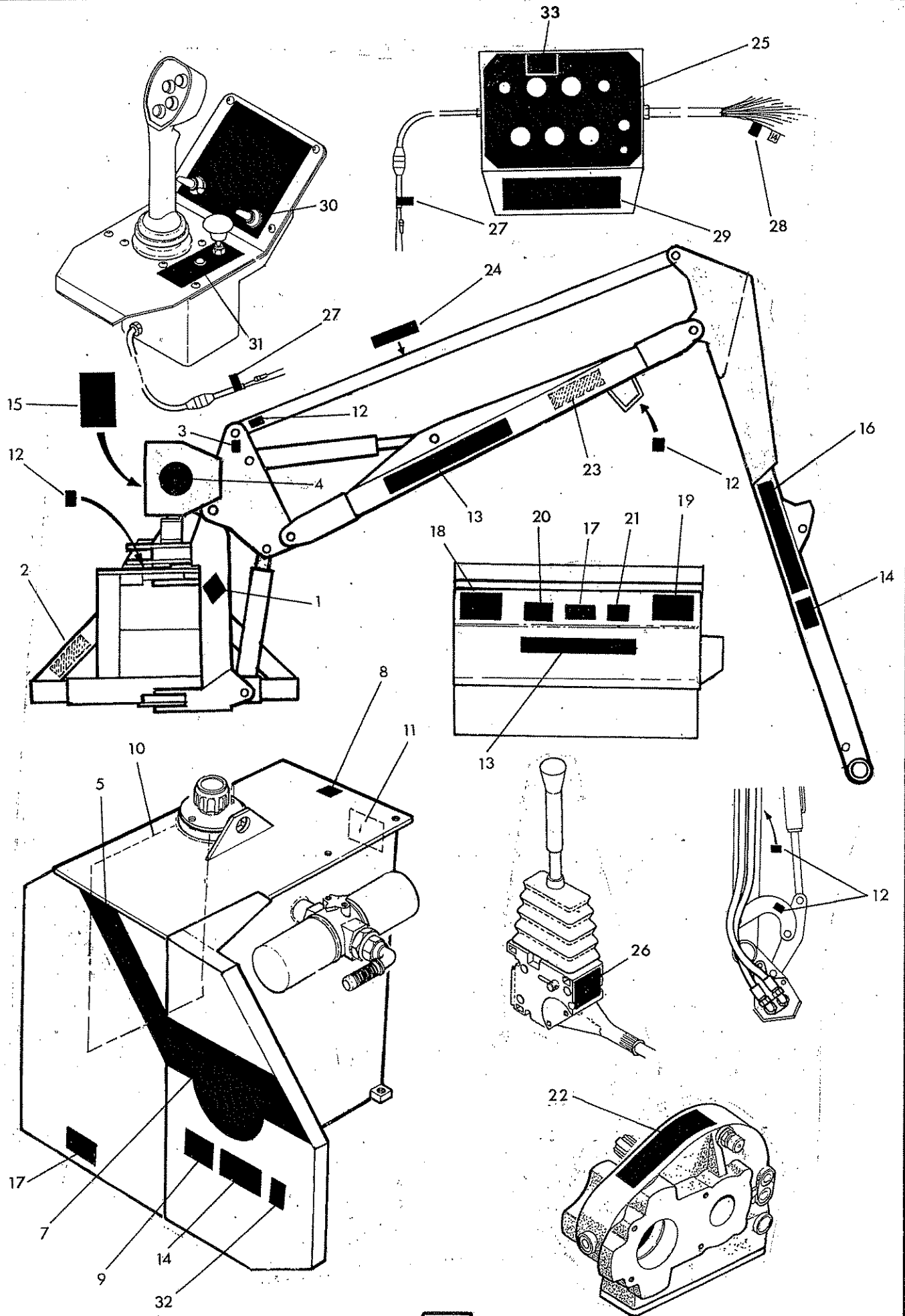
FOLD RAM

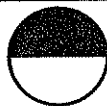


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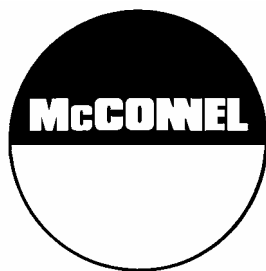


Ref	Part No.	Qty	Description
	42664.05		FOLD RAM ASSEMBLY
1	42664.42	1	Ram barrel
2	42664.32	1	Gland housing
3	86 29 222	1	Gland seal
4	86 29 147	1	Piston rod wiper seal
5	86 00 306	1	'O' ring
6	42062.01	1	Spacer
7	42664.39	1	Piston rod
8	42654.01	4	Bush
9	42664.31	1	Piston
10	86 29 156	1	Piston seal
11	42775.01	1	Dowel
12	09 01 121	2	Greaser
13	85 81 115	2	Adaptor
14	86 50 103	2	Bonded seal
15	86 29 157	1	Guide ring
16	86 00 127	1	'O' ring
	42664.08		SEAL KIT





Ref	Part No	Qty	Description
STICKERS			
1	71 05 130	1	Read book first
2	71 35 295	1	Tighten check chains
3	12 90 074	1	Sling here symbol
4	12 90 296	1	Logo roundel
5	12 90 454	1	Tank stripe
6	12 90 352	1	Gen. warning - despatched loose
7	12 90 455	1	Fairing stripe/roundel
8	12 90 023	1	Oil filter instructions
9	12 90 453	1	PA
10	12 90 391	1	General warning
11	00756494	1	Fitting P.T.O.
12	00962764	5	Pinch point
13	12 90 255	2	McConnel
14	12 90 448	2	500
	12 90 457	2	590
15	84 02 136	1	Solenoid connections
16	12 90 295	1	Power Arm
17	12 90 508	2	54 hp
18	12 90 377	1	Flail head instructions
19	12 90 341	1	Flail head guarding
20	00756485	1	Rotating blade warning
21	12 90 392	1	Use McConnel spares
22	12 90 089	1	Gearbox oil capacity
23	12 90 403	1	Breakaway return warning
24	12 90 406	1	Transport
25	12 90 351	1	Controls - switchbox only
26	12 90 338	1	R.C. valve controls
27	84 02 105	1	Polarity label
28	84 02 121	1	Connection warning
29	84 02 138	1	Slew warning (loose with joystick)
30	12 90 451	1	Controls - joystick only
31	12 90 080	1	Power - joystick only
32	12 90 071	1	E
33	12 90 081	1	Midcut control overlay sticker



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